#### **DRAFT**

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## Dr. Yann-Gaël Guéhéneuc

Correspondence language: French

Sex: Male

Date of Birth: 4/25

Canadian Residency Status: Canadian Citizen

Country of Citizenship: France

#### **Contact Information**

The primary information is denoted by (\*)

#### **Address**

Mailing

Département de Génie informatique et génie

<del>logicie</del>

École Polytechnique Montréal C.P. 6079, succ. Centre Ville

Montréal Quebec H3C 3A7

<del>Canada</del>

Primary Affiliation (\*)

Computer Science and Software Engineering Concordia University

1455 de Maisonneuve Boulevard West

Montréal Quebec H3G 1M8

Canada

#### Telephone

Fax 1-514-848-2830

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**Email** 

Work (\*) yann-gael.gueheneuc@concordia.ca

Website

Personal http://www.ptidej.net/Members/guehenyg

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#### Protected when completed

## Dr. Yann-Gaël Guéhéneuc

## Language Skills

Language	Read	Write	Speak	Understand	Peer Review
English	Yes	Yes	Yes	Yes	Yes
French	Yes	Yes	Yes	Yes	Yes

### **Degrees**

2000/6 - 2003/6 Doctorate, Diplôme de doctorat en informatique, Software Engineering, Université de

Nantes / École des Mines de Nantes

Degree Status: Completed

Supervisors: Pierre Cointe, 2000/6 - 2003/6

1997/9 - 1998/10 Master's Equivalent, Diplôme d'études approfondies en informatique, Software

Engineering, Université de Nantes

Degree Status: Completed

1994/10 - 1998/10 Bachelor's Equivalent, Diplôme d'ingénieur, Software Engineering, École des Mines de

Nantes

Degree Status: Completed

1990/9 - 1993/7 Diploma, Diplome de baccalauréat en mathématiques et technique, Mathematics and

Technology, Lycée Technologique Livet

Degree Status: Completed

#### **Credentials**

2008/6 Ingénieur, Ordre des ingénieurs du Québec

## Recognitions

2021/2 IEEE TCSE Most Influential Paper at SANER'21

IEEE

Distinction

For M. Abbes, F. Khomh, Y.-G. Guéhéneuc, and G. Antoniol; An Empirical Study of the Impact of Two Antipatterns, Blob and Spaghetti Code, on Program Comprehension; Proceedings of the 15th IEEE European Conference on Software Maintenance and

Reengineering (CSMR'11), pp. 181-190, 2011.

2020/3 Outstanding Reviewer Award for Elsevier IST

Elsevier Distinction

For my reviews of submitted manuscripts, more than 34 as of 23/10/20

2019/8 **Excellent Research Award** 

Japan Information Processing Society

Distinction

For H. Washizaki, Y.-G. Guéhéneuc, and F. Khomh; ProMeTA: A Taxonomy for Program Metamodels in Program Reverse Engineering; Springer Empirical Software Engineering (EMSE), pp. 2323-2358, 2018.

2019/5 Best Paper Award at MOBILESoft'19

> ACM Distinction

For A. Belkhir, M. Abdellatif, R. Tighilt, N. Moha, Y.-G. Guéhéneuc, and É. Beaudry; An Observational Study on the State of REST API Uses in Android Mobile Applications; Proceedings of the 6th IEEE/ACM International Conference on Mobile Software

Engineering and Systems (MOBILESoft), pp. 66-75, 2019.

2019/1 IEEE TCSE Most Influential Paper at SANER'19

> IEEE Distinction

For F. Khomh, M. Di Penta, and Y.-G. Guéhéneuc; An Exploratory Study of the Impact of Code Smells on Software Change-proneness; Proceedings of the 16th IEEE Working Conference on Reverse Engineering (WCRE'09), pp. 75-84, 2009.

2018/12 Best Paper Award at APSEC'18

> IEEE Distinction

For G. Hecht, H. Mili, G. Elboussaidi, A. Boubaker, M. Abdellatif, Y.-G. Guéhéneuc, A. Shatnawi, J. Privat, and N. Moha; Codifying Hidden Dependencies in Legacy J2EE Applications: Proceedings of the 25th Asia-Pacific Software Engineering Conference (APSEC'18), pp. 305-314, 2018

2018/11 Best Student Paper Award at ICSOC'18

> Springer Distinction

For M. Abdellatif, G. Hecht, H. Mili, G. El Boussaidi, N. Moha, A. Shatnawi, J. Privat, and Y.-G. Guéhéneuc; State of the Practice in Service Identification for SOA Migration in Industry; Proceedings of the 16th Springer International on Service-Oriented Computing (ICSOC), pp. 634-650, 2018.

Most Influential Paper Award at CASCON'18 2018/9

> ACM Distinction

For G. Antoniol, K. Ayari, M. Di Penta, F. Khomh, and Y.-G. Guéhéneuc; Is It a Bug or an Enhancement? A Text-based Approach to Classify Change Requests; Proceedings of the 18th ACM Conference of the Center for Advanced Studies on Collaborative Research (CASCON), pp. 304-318, 2008.

2018/1 Most Influential Paper Award at SANER'18

> **IEEE** Distinction

For F. Khomh and Y.-G. Guéhéneuc; Do Design Patterns Impact Software Quality Positively?; Proceedings of the 12th IEEE European Conference on Software

Maintenance and Reengineering (CSMR), pp. 274-278, 2008.

2014/11 Best Paper Award at SOCA'14

**IEEE Computer Society** 

Distinction

Best Paper Award at SOCA'14

2012/11 Runner-up Best Paper Award at ICSOC'12

Springer Distinction

2012/9 Best Paper Award at WCRE'12

IEEE Computer Society

Distinction

2011/3 Best paper award at CSMR'11

**IEEE Computer Society** 

Distinction

2010/9 Best paper award at ERA Track at ICSM'10

**IEEE Computer Society** 

Distinction

2010/4 Senior Member

IEEE Distinction

2010/3 Best paper award at CSMR'10

**IEEE Computer Society** 

Distinction

2006/6 Best paper award at ICPC'06

**IEEE Computer Society** 

Distinction

2005/9 Best paper award at ICSM'05

**IEEE Computer Society** 

Distinction

#### **User Profile**

Researcher Status: Researcher Engaged in Clinical Research?: No

Research Interests: Developing theories, methods, and tools, to understand, evaluate, and improve the quality of IoT software systems by promoting the use of idioms, design patterns, and architectural patterns, from communications protocols to systems-of-systems.

Fields of Application: Communication and Information Technologies

Disciplines Trained In: Computer Engineering and Software Engineering, Industrial Engineering

Areas of Research: Algorithms, Computer Systems, Software Development, Teleinformatics

Research Specialization Keywords: Software development, Software modelling, Program comprehension, Static

analyses, Dynamic analyses, Historical analyses, Internet of Things, Service-oriented architecture

Research Disciplines: Computer Engineering and Software Engineering

## **Employment**

2017/8 Full Professor

Department of Computer Science and Software Engineering, Gina Cody School of

Engineering and Computer Science, Concordia University

Full-time

Tenure Status: Tenure

2012/6 - 2017/8 Full Professor

Département de génie informatique et génie logiciel, École Polytechnique de Montréal

Full-time

Tenure Status: Tenure

2013/3 - 2014/4 Guest Professor

Computer Science, Wonju Campus, Yonsei University, Republic of Korea

Full-time

Tenure Status: Non Tenure Track

2008/6 - 2012/5 Associate Professor

Département de génie informatique et génie logiciel, École Polytechnique de Montréal

Full-time

Tenure Status: Tenure

2008/5 - 2008/6 Associate Professor

Département d'informatique et recherche opérationnelle, Université de Montréal

Full-time

Tenure Status: Tenure

2003/8 - 2008/5 Assistant Professor

Département d'informatique et recherche opérationnelle, Université de Montréal

Full-time

Tenure Status: Tenure Track

1999/12 - 2001/5 Software Developer

Object Technology International, Ottawa, ON, Canada

1998/12 - 2000/4 Invited Researcher

School of Computer Science, Carleton University

Full-time

Tenure Status: Non Tenure Track

#### **Affiliations**

The primary affiliation is denoted by (\*)

(\*) 2017/8 Full Professor, Computer Science and Software Engineering, Concordia University

## **Leaves of Absence and Impact on Research**

2020/3 - 2022/2 Special, Concordia University

Main caregiver of my two daughters during the COVDI-19 pandemic, 33% work reduction

2017/1 - 2020/12 Special, Concordia University

Chronic illness, 20% work reduction

## **Research Funding History**

#### Awarded [n=8]

2024/5 - 2029/4 Recommending IoT APIs by Studying the Requirements, Features, and Patterns of IoT

Principal Investigator Framework APIs, Grant

2024/5 - 2029/4 Natural Sciences and Engineering Research Council of Canada

(NSERC)

Discovery Grant

Total Funding - 275,000 (Canadian dollar)

Portion of Funding Received - 55,000 (Canadian dollar)

Funding Competitive?: Yes

2024/1 - 2025/12 Co-investigator

Designation Living Lab: Building Retrofit from Design to Implementation towards Prosumer and Grid-support Services, Grant

Funding Sources:

2024/1 - 2025/12 Canada First Research Excellence Fund

Electrification for Resilient Decarbonized Communities - Seed

Grants

Total Funding - 250,000 (Canadian dollar)

Portion of Funding Received - 0 Funding Competitive?: Yes

Co-investigator : Nizar Bouguila; Yann-Gaël Guéhéneuc;

Collaborator: Bernard Bitar; Mayi Kato; Ursula Eicker;

Principal Investigator: Manar Aymari

2024/1 - 2025/12 Principal Investigator Grant

Digital Data Analysis and Modeling Platform for Decarbonizing the Built Environment,

Funding Sources:

2024/1 - 2025/12 Canada First Research Excellence Fund

Electrification for Resilient Decarbonized Communities - Seed

Grants

Total Funding - 250,000 (Canadian dollar) Portion of Funding Received - 100,000

Funding Competitive?: Yes

Co-investigator : Francesco Ciari; Liangzhu Wang; Michaël Kummert; Ursula Eicker;

Principal Investigator : Yann-Gaël Guéhéneuc

2018/5 - 2025/4 Principal Investigator Empirical Software Engineering for the Internet of Things, Research Chair

**Funding Sources:** 

2018/5 - 2025/4 Canada Research Chairs (CRC)

Total Funding - 1,400,000 (Canadian dollar) Portion of Funding Received - 630,000

Funding Competitive?: Yes

Principal Investigator: Yann-Gaël Guéhéneuc

2024/1 - 2024/12 Principal Investigator Grant

ReAnimate: 2024 Summer School on Retro Gaming History, Critic, and Development,

**Funding Sources:** 

2023/9 - 2024/12 ACM SIGSOFT

Support for Summer/Winter Schools in Software Engineering

Total Funding - 3,000 (United States dollar)

Portion of Funding Received - 0 Funding Competitive?: Yes

Co-investigator: Carl Therrien; Cristiano Politowski; Fabio Petrillo;

Principal Investigator : Yann-Gaël Guéhéneuc

2023/5 - 2024/4 Principal Investigator Building Multi-language, Multi-system Quality Models using Features and APIs, Grant

**Funding Sources:** 

2023/5 - 2024/4 Natural Sciences and Engineering Research Council of Canada

(NSERC)

Discovery Grant COVID-19 Extension with Funds

Total Funding - 48,000 (Canadian dollar)
Portion of Funding Received - 48,000

Funding Competitive?: No

Principal Investigator : Yann-Gaël Guéhéneuc

2020/1 - 2023/12 Co-investigator Systems Analyses and Debugging for Program Comprehension, Grant

**Funding Sources:** 

2020/1 - 2022/12 European Smalltalk User Group

Total Funding - 2,400 (Euro)

Portion of Funding Received - 0 (Canadian dollar)

Funding Renewable?: Yes Funding Competitive?: Yes

2020/1 - 2022/12 Institut National de Recherche en Informatique et Automatique

(INRIA)

Équipe associée

Total Funding - 13,000 (Euro)

Portion of Funding Received - 0 (Canadian dollar)

Funding Renewable?: Yes Funding Competitive?: Yes

Co-investigator : Christopher Fuhrman; Nicolas Anguetil; Stéphane Ducasse; Yann-Gaël

Guéhéneuc

2023/5 - 2023/8

Software Engineering Open Data Infrastructure, Scholarship

Principal Investigator Funding Sources:

2023/9 - 2025/8 Mathematics of Information Technology and Complex Systems

(MITACS)

Globalink Research Award

Total Funding - 6,000 (Canadian dollar)

Portion of Funding Received - 0 Funding Competitive?: Yes

Co-investigator: Rodrigo Morales;

Principal Investigator : Yann-Gaël Guéhéneuc

Completed [n=42]

2018/5 - 2023/4 Building Multi-language, Multi-system Quality Models using Features and APIs, Grant,

Principal Investigator Operating

2018/5 - 2023/4 Natural Sciences and Engineering Research Council of Canada

(NSERC)

Discovery Grant

Total Funding - 240,000 (Canadian dollar) Portion of Funding Received - 240,000

Funding Competitive?: Yes

Principal Investigator: Yann-Gaël Guéhéneuc

2018/5 - 2023/4 Principal Investigator Empirical Software Engineering for the Internet of Things, Grant, Infrastructure

**Funding Sources:** 

2018/5 - 2019/4 Canada Foundation for Innovation (CFI)

Canada Research Chair Tier 1

Total Funding - 282,135 (Canadian dollar) Portion of Funding Received - 282,135

Funding Competitive?: Yes

Principal Investigator: Yann-Gaël Guéhéneuc

2021/1 - 2023/4 Co-investigator

Ensuring Privacy while Reducing Asymmetry in the Customer-Merchant Relationship (Assurer le respect de la vie privée tout en réduisant l'asymétrie dans la relation clientcommercant in French), Grant

**Funding Sources:** 

2021/1 - 2023/4 Laboratoire de recherches transdisciplinaires sur les écosystèmes

informatiques (LATECE)

Projet patrimonial

Total Funding - 32,000 (Canadian dollar)

Portion of Funding Received - 0 Funding Competitive?: Yes

Co-investigator: Jean Privat; Marc-Olivier Killijian; Sébastien Gambs; Yann-Gaël

Guéhéneuc

2020/1 - 2023/4 Principal Investigator

Interdisciplinary Research Collaboration between Quebec and Mexico to Support the Creation, Operation, and Testing of Robust Software for the IoT (Collaboration de recherche interdisciplinaire entre le Québec et le Mexique in French), Grant, Operating

Funding Sources:

2019/5 - 2021/4 Ministère des Relations internationales et de la Francophonie

(MRIF)

Groupe de travail Québec-Mexique Total Funding - 16,000 (Canadian dollar) Portion of Funding Received - 5,434

Funding Competitive?: Yes

Co-investigator : Carlos Coello Coello; Rodrigo Morales;

Principal Investigator: Yann-Gaël Guéhéneuc

2020/1 - 2022/12

Open Partnership Joint Research, Grant, Operating Co-investigator

Clinical Research Project?: No

2020/1 - 2022/12 Japan Society for the Promotion of Science (JSPS)

> Open Partnership Joint Research Total Funding - 35,000 (Japanese yen)

Portion of Funding Received - 0 (Canadian dollar)

Funding Renewable?: No Funding Competitive?: Yes

Co-investigator : Yann-Gaël Guéhéneuc; Principal Investigator: Hironori Washizaki

2020/7 - 2022/7 Principal Investigator IoT Research: from Modelling to Implementing Smart Cities, Grant, Workshop

#### **Funding Sources:**

2020/4 - 2021/4 Concordia University

Aid to Research-related Events

Total Funding - 5,000 (Canadian dollar) Portion of Funding Received - 1,193

Funding Competitive?: Yes

Co-investigator: Ursula Eicker;

Principal Investigator : Yann-Gaël Guéhéneuc

2021/5 - 2022/4 Co-investigator

SPAR Lab: A Research Laboratory to Develop and Assess Smart Process Applications, Grant, Infrastructure

#### **Funding Sources:**

2021/1 - 2022/12 Canada Foundation for Innovation (CFI)

Innovation Fund

Total Funding - 1,806,058 (Canadian dollar)

Portion of Funding Received - 0 Funding Competitive?: Yes

Co-investigator: Ghizlane El Boussaidi; Halima Elbiaze; Mounir Boukadoum; Naouel

Moha: Simon Bacon: Wessam Aiib: Yann-Gaël Guéhéneuc:

Principal Investigator: Hafedh Mili; Kim Lavoie

2018/2 - 2021/12 Co-investigator

An Intelligent Mixed-reality Simulation and Training Ecosystem for Extreme Environments, Grant, Operating

#### Funding Sources:

2020/5 - 2023/4 Consortium for Research and Innovation in Aerospace in Québec

(CRIAQ)

AUT-1653\_TRL4+

Total Funding - 5,259,495 (Canadian dollar) Portion of Funding Received - 15,750

Funding Competitive?: Yes

Co-investigator : Andréa Lodi; Antoine Legrain; Caroline Aubé; David Meger; David Saussié; Giovanni Beltrame; Grégory Dudek; Inna Sharf; Yann-Gaël Guéhéneuc;

Co-knowledge User: Abdo Shabah (Humanitas Solutions); Hermann Brassard (Presagis);

Martin Rivest (Thalès); Taïf Rahman (Elisen & Associates);

Principal Investigator : Gabriela Nicolescu

2020/6 - 2021/9

Verifying and Deploying 5G Cloud Infrastructure for Improved Logistic and Communication Principal Investigator in Healthcare Facilities Dealing with COVID-19 Patients, Grant, Operating

2020/6 - 2022/5 Mathematics of Information Technology and Complex Systems

(MITACS) Accelerate

Total Funding - 120,000 (Canadian dollar)
Portion of Funding Received - 120,000

Funding Competitive?: Yes

Principal Investigator : Yann-Gaël Guéhéneuc;

Principal Knowledge User: Abdo Shabah (Humanitas Solutions)

2020/9 - 2021/8 Principal Investigator

Real-time Surrogate Safety Analysis Solution using Lidar Technology Powered by Artificial Intelligence, Grant, Operating

**Funding Sources:** 

2020/9 - 2022/8 Mathematics of Information Technology and Complex Systems

(MITACS) Accelerate

Total Funding - 45,000 (Canadian dollar) Portion of Funding Received - 45,000

Funding Competitive?: Yes

Principal Investigator: Yann-Gaël Guéhéneuc;

Principal Knowledge User: Asad Lesani (BlueCity Technology)

2018/4 - 2019/12 Principal Investigator Empirical Evaluation of Software Development Environments (Évaluation empirique des environnements de développement logiciel in French), Grant, Operating

**Funding Sources:** 

2018/4 - 2019/12 Agence Universitaire de la Francophonie (AUF)

Support for Interuniversity Solidarity Projects in the Americas

(PRISA)

Total Funding - 15,895 (Canadian dollar)
Portion of Funding Received - 15,244

Funding Competitive?: Yes

Co-investigator: Marcelo Soares Pimenta; Marco Tulio Valente; Regina Motz;

Principal Investigator : Yann-Gaël Guéhéneuc

2017/9 - 2019/8 Principal Investigator

Startup, Grant, Establishment

**Funding Sources:** 

2017/9 - 2019/12 Concordia University

Startup

Total Funding - 75,000 (Canadian dollar) Portion of Funding Received - 75,000

Funding Competitive?: No

Principal Investigator : Yann-Gaël Guéhéneuc

2018/5 - 2019/4 Applying Machin

Applying Machine Learning Techniques to the Identification and Correction of Anomalies

Principal Investigator in Transaction Sale Data, Grant, Operating

2018/9 - 2019/8 Mathematics of Information Technology and Complex Systems

(MITACS) Accelerate

Total Funding - 3,000 (Canadian dollar) Portion of Funding Received - 3,000

Funding Competitive?: Yes

Co-investigator : Foutse Khomh;

Principal Investigator: Yann-Gaël Guéhéneuc;

Principal Knowledge User: Bernd Lehnert (SAP)

2014/5 - 2019/4 Principal Investigator Patterns in Mixed-language Systems, Research Chair

Clinical Research Project?: No

**Funding Sources:** 

2009/5 - 2014/4 Canada Research Chairs (CRC)

Tier 2

Total Funding - 500,000 (Canadian dollar)

Portion of Funding Received - 500,000 (Canadian dollar)

Funding Competitive?: Yes

Principal Investigator : Yann-Gaël Guéhéneuc

2014/5 - 2018/12 Co-investigator Development of Context-aware Software Reuse Techniques (REUSE), Grant, Operating

**Funding Sources:** 

2014/5 - 2018/8 Ministry of Science, ICT and Future Planning (MSIP)

National Research and Development Project Total Funding - 30,000 (Canadian dollar)

Portion of Funding Received - 0 Funding Competitive?: Yes

Co-investigator : Yann-Gaël Guéhéneuc;

Principal Investigator: Young-kwang Nam

2018/5 - 2018/8 Principal Investigator Low Resource Open Source Web Browser, Scholarship

**Funding Sources:** 

2018/5 - 2018/8 Natural Sciences and Engineering Research Council of Canada

(NSERC)

Undergraduate Student Research Award (USRA)

Total Funding - 6,000 (Canadian dollar) Portion of Funding Received - 6,000

Funding Competitive?: Yes

Principal Investigator: Yann-Gaël Guéhéneuc

2015/5 - 2018/4 Principal Investigator Service-oriented Architectural Reengineering of Object-oriented Legacy Software (Réingénierie architecturale orientée services de logiciels légataires orientés objet in

French), Grant, Operating

2015/5 - 2018/4 Fonds de recherche du Québec - Nature et technologies (FRQNT)

Team Grant

Total Funding - 144,000 (Canadian dollar)

Portion of Funding Received - 144,000 (Canadian dollar)

Funding Renewable?: No Funding Competitive?: Yes

Co-investigator : Ghizlane El Boussaidi; Hafedh Mili; Naouel Moha;

Principal Investigator: Yann-Gaël Guéhéneuc

2012/5 - 2018/4 Principal Investigator Building Practical Software Quality Models, Grant, Operating

Principal Investigator Clinical Research Project?: No

**Funding Sources:** 

2012/5 - 2017/4 Natural Sciences and Engineering Research Council of Canada

(NSERC)
Discovery Grant

Total Funding - 204,000 (Canadian dollar)

Portion of Funding Received - 204,000 (Canadian dollar)

Funding Competitive?: Yes

Principal Investigator: Yann-Gaël Guéhéneuc

2012/5 - 2017/4 Principal Investigator

ICD Management, Grant, Operating Clinical Research Project?: No

**Funding Sources:** 

2012/5 - 2016/12 Natural Sciences and Engineering Research Council of Canada

(NSERC)

Collaborative Research and Development Grant (CRD)

Total Funding - 132,000 (Canadian dollar)

Portion of Funding Received - 132,000 (Canadian dollar)

Funding Competitive?: Yes

Co-investigator: Roger Champane; Yvan Labiche;

Collaborator: Claire Mangado; Giuliano Antoniol; John Mullins;

Principal Investigator: Yann-Gaël Guéhéneuc;

Principal Knowledge User: Pierre Labrèche (CMC Electronics)

2013/9 - 2016/8 Co-applicant Evaluation of a Tailored Virtual Intervention as an Instrument of Prevention and

Therapeutic Support to Improve the Health of PLHIV and Reduce Comorbidity Associated

with HIV, Grant, Operating Clinical Research Project?: Yes

**Funding Sources:** 

2013/9 - 2016/8 Canadian Institutes of Health Research (CIHR)

HΙV

Total Funding - 421,224 (Canadian dollar)

Portion of Funding Received - 1 (Canadian dollar)

Funding Renewable?: No Funding Competitive?: Yes

2013/9 - 2016/4 Co-applicant A Recommendation System for Managing the Configuration of Multi-tier Systems, Grant,

Operating

Clinical Research Project?: No

2013/9 - 2016/4 Fonds Québécois de la Recherche sur la Nature et les

Technologies (FQRNT)

Team project

Total Funding - 126,000 (Canadian dollar)

Portion of Funding Received - 1 (Canadian dollar)

Funding Renewable?: No Funding Competitive?: Yes

2016/1 - 2016/4 Principal Investigator NSERC Day on Software Engineering for Cyber-physical Systems, Grant, Workshop

**Funding Sources:** 

2016/1 - 2016/4 Natural Sciences and Engineering Research Council of Canada

(NSERC) Connect

Total Funding - 2,880 (Canadian dollar)
Portion of Funding Received - 100

Funding Competitive?: Yes

2015/9 - 2015/12 Principal Investigator Ptidej Tool Suite, Grant, Operating

**Funding Sources:** 

Korean Open Source Association

OSS World Challenge Total Funding - 3,000

Portion of Funding Received - 100 Funding Competitive?: Yes

2009/6 - 2014/6

Software Patterns and Patterns of Software, Research Chair

Principal Investigator Clinical Research Project?: No

**Funding Sources:** 

2009/6 - 2014/5 Canada Research Chairs (CRC)

Tier 2

Total Funding - 500,000 (Canadian dollar)

Portion of Funding Received - 50 (Canadian dollar)

Funding Competitive?: Yes

2009/5 - 2014/4

Software Patterns and Patterns of Software, Grant, Infrastructure

Principal Investigator Clinical Research Project?: No

**Funding Sources:** 

2009/5 - 2014/4 Canada Foundation for Innovation (CFI)

Tier II

Total Funding - 103,280 (Canadian dollar)

Portion of Funding Received - 100 (Canadian dollar)

Funding Competitive?: Yes

Principal Investigator : Yann-Gaël Guéhéneuc

2012/1 - 2013/4

Operationalizing Quality Evaluation for Heterogeneous Legacy Systems, Grant, Operating

Principal Investigator Clinical Research Project?: No

2012/1 - 2013/4 MITACS and Benchmark Consulting

Accelerate

Total Funding - 80,000 (Canadian dollar)

Portion of Funding Received - 100 (Canadian dollar)

Funding Competitive?: No

Co-applicant : Giuliano Antoniol

2009/5 - 2012/4 Co-investigator Méthodes à base de contraintes pour la vérification des systèmes logiciels-matériels,

Grant, Operating

Clinical Research Project?: No

**Funding Sources:** 

2009/5 - 2012/4 Fonds Québécois de la Recherche sur la Nature et les

Technologies (FQRNT) Projet en équipe

Total Funding - 168,900 (Canadian dollar)

Portion of Funding Received - 50 (Canadian dollar)

Funding Competitive?: Yes

Co-investigator : Giuliano Antoniol; Principal Investigator : Gilles Pesant

2007/5 - 2012/4 Principal Investigator Understanding the Impacts of Software Design Patterns and, Grant, Operating

**Funding Sources:** 

2007/5 - 2012/4 Natural Sciences and Engineering Research Council of Canada

(NSERC)

Subvention à la découverte

Total Funding - 135,000 (Canadian dollar)

Funding Competitive?: Yes

Principal Investigator : Yann-Gaël Guéhéneuc

2008/5 - 2011/4 Co-investigator Évaluation d'une intervention virtuelle (application Web) visant à optimiser la prise des

antirétroviraux auprès des personnes vivant avec le VIH, Grant, Operating

Clinical Research Project?: No

**Funding Sources:** 

2008/5 - 2011/4 Fonds de la Recherche en Santé du Québec (FRSQ)

Équipe

Total Funding - 229,160 (Canadian dollar)

Portion of Funding Received - 1 (Canadian dollar)

Funding Competitive?: Yes

Principal Investigator : José Côté

2007/5 - 2010/4 Principal Investigator Application d'algorithmes de bio-informatique à l'analyse des programmes et de leur évolution, Grant, Operating

**Funding Sources:** 

2007/5 - 2010/4 Fonds Québécois de la Recherche sur la Nature et les

Technologies (FQRNT)

Projet en équipe

Total Funding - 155,000 (Canadian dollar)

Funding Competitive?: Yes

Co-investigator : Sylvie Hamel

2006/11 - 2009/10 Mesure des objets p Principal Investigator Contract, Operating

Mesure des objets pour la visualisation, l'évaluation et la re-ingénierie des logiciels,

**Funding Sources:** 

2006/11 - 2009/10 SNCF

Contrat de recherche

Total Funding - 112,000 (Canadian dollar)

Funding Competitive?: No

Co-investigator : Houari Saharoui

2007/5 - 2009/4 Co-investigator Efficacité d'un programme d'intervention sur mesure à optimiser l'adhésion au antirétroviraux, Grant, Operating

Funding Sources:

2007/5 - 2009/4 Fonds Québécois de la Recherche sur la Société et la Culture

(FQRSC)

Projet en équipe

Total Funding - 150,000 (Canadian dollar)

Funding Competitive?: Yes

Principal Investigator: Côté, José

2008/1 - 2008/12 Co-investigator REMOOS, Grant, Operating Clinical Research Project?: No

**Funding Sources:** 

2008/1 - 2008/12 Institut National de Recherche en Informatique et Automatique

(INRIA)

Équipe Associée

Total Funding - 36,570 (Canadian dollar)

Portion of Funding Received - 50 (Canadian dollar)

Funding Competitive?: Yes

Co-investigator: Oscar Nierstrasz;

Principal Investigator : Stéphane Ducasse

2007/9 - 2008/12 Co-investigator Vers un langage spécifique au domaine de la suggestion de correction des défauts de conception, Grant, Operating

**Funding Sources:** 

2007/9 - 2008/12 Institut National de Recherche en Informatique et Automatique

(INRIA)

Programme INRIA--FQRNT

Total Funding - 12,850 (Canadian dollar)

Funding Competitive?: Yes

Co-investigator : Anne-Françoise Le Meur; Principal Investigator : Laurence Duchien

2008/1 - 2008/8 Principal Investigator Soutenance de la thèse de doctorat de Naouel Moha, Grant, Operating

**Funding Sources:** 

2008/1 - 2008/8 Université Lille 2 (France)

Crédits BQR - Internationalisation de la recherche

Total Funding - 2,215 (Canadian dollar)

Principal Investigator: Laurence Duchien

2007/5 - 2008/4

Un outil d'évaluation de la qualité architecturale logicielle, Grant, Operating

Principal Investigator

**Funding Sources:** 

2007/5 - 2008/4 University of Montreal

Valorisation des innovations et du capital intellectuel

Total Funding - 6,720 (Canadian dollar)

Principal Investigator : Yann-Gaël Guéhéneuc

2007/5 - 2007/6 Principal Investigator Detection and Correction of Design Defects, Grant, Operating

**Funding Sources:** 

2007/5 - 2007/6 Department of Foreign Affairs and International Trade (Canada)

> Remboursement des frais de présentation Total Funding - 495 (Canadian dollar)

Principal Investigator: Yann-Gaël Guéhéneuc

2007/3 - 2007/4 Principal Investigator Futurs ADAM, Grant, Operating

Collaboration avec Laurence Duchien et Anne-Francoise Le Meur de l'equipe INRIA

**Funding Sources:** 

2007/3 - 2007/4 Institut National de Recherche en Informatique et Automatique

(INRIA)

EGIDE : Centre français pour l'accueil et les échanges inter

Total Funding - 4,400 (Canadian dollar)

Principal Investigator: Yann-Gaël Guéhéneuc, Laurence Duchien et Anne-Françoise Le

Meur

2004/5 - 2007/4

Tools to improve architectural and design maintenability of object-oriented programs, Principal Investigator Grant, Operating

**Funding Sources:** 

2004/5 - 2007/4 Natural Sciences and Engineering Research Council of Canada

(NSERC)

Subvention à la découverte

Total Funding - 74,100 (Canadian dollar)

Principal Investigator : Yann-Gaël Guéhéneuc

2005/9 - 2006/8 Co-investigator

Support informatique pour l'analyse et l'amélioration du comportement des patients avec une maladie longue, Grant, Operating

Funding Sources:

2005/9 - 2006/8 Fonds de la Recherche en Santé du Québec (FRSQ)

Réseau SIDA et maladies infectieuses du FRSQ, en équipe

Total Funding - 15,000 (Canadian dollar)

Principal Investigator: Côté, José

2005/9 - 2006/4 Principal Investigator

A laboratory for experimental software engineering to evaluate online static analyses and program understanding techniques that support program maintenance and development., Grant, Equipment

**Funding Sources:** 

2005/9 - 2006/4 Canada Foundation for Innovation (CFI)

Infrastructure

Total Funding - 362,140 (Canadian dollar)

Principal Investigator:

2003/9 - 2004/8

Ptidei, une suite d'outils pour évaluer et améliorer la qualité des programmes orientés-Principal Investigator objets en promouvant l'utilisation de patrons, Grant, Establishment

**Funding Sources:** 

2003/9 - 2004/8 University of Montreal

Fonds de démarrage

Total Funding - 30,000 (Canadian dollar)

Principal Investigator:

**Under Review [n=5]** 

Principal Investigator WAPITERb - Where Are People In The ER Building, Grant, Equipment

**Funding Sources:** 

2021/1 - 2024/12 Concordia University

Capital Call

Total Funding - 434,773 (Canadian dollar)

Co-investigator : Ursula Eicker

2024/5 - 2029/4 Co-applicant

Centre for Systems, Technologies and Applications for Radiofrequency and Communications (Centre pour les systèmes, technologies et applications en radiofréquences et communications, STARaCom, in French), Grant

Funding Sources:

2024/3 - 2027/4 Fonds de recherche du Québec - Nature et technologies (FRQNT)

Strategic Cluster

Total Funding - 500,000 (Canadian dollar)

Portion of Funding Received - 0 Funding Competitive?: Yes

Co-applicant: Yann-Gaël Guéhéneuc and 56 others;

Principal Applicant: David Plant

2024/5 - 2027/4 Co-applicant

Interuniversity Research Center on Digital Humanities (Centre de recherche interuniversitaire sur les humanités numériques, CIRHN, in French), Grant

**Funding Sources:** 

2024/3 - 2027/4 Fonds de recherche du Québec - Société et culture (FRQSC)

Strategic Cluster

Total Funding - 300,000 (Canadian dollar)

Portion of Funding Received - 0 Funding Competitive?: Yes

Co-applicant: Yann-Gaël Guéhéneuc and 70 others;

Principal Applicant: Michael Eberle-Sinatra

2024/1 - 2025/12 Co-investigator

International Community Energy Living Labs (ICELL), Grant

Funding Sources:

2024/1 - 2025/12 Canada First Research Excellence Fund

Electrification for Resilient Decarbonized Communities - Seed

Grants

Total Funding - 250,000 (Canadian dollar)

Portion of Funding Received - 0 Funding Competitive?: Yes

#### DRAFT

Dr. Yann-Gaël Guéhéneuc

Co-investigator: Aphrodite Salas; Caroline Hachem-Vermette; Ivan Kantor; Luiz Lopes;

Mohamed Ouf; Yann-Gaël Guéhéneuc; Principal Investigator : Ursula Eicker

2024/1 - 2025/12 Principal Investigator Interdisciplinary Research Collaboration between Quebec and Mexico on the Use of Multiobjective Optimisation to Improve API of IoT Frameworks (Collaboration de recherche interdisciplinaire entre le Québec et le Mexique in French), Grant

**Funding Sources:** 

2024/1 - 2025/12 Ministère des Relations internationales et de la Francophonie

(MRIF)

Groupe de travail Québec-Mexique Total Funding - 16,000 (Canadian dollar)

Portion of Funding Received - 0 Funding Competitive?: Yes

Co-investigator: Carlos Coello Coello; Rodrigo Morales;

Principal Investigator : Yann-Gaël Guéhéneuc

## **Student/Postdoctoral Supervision**

Bach	olor's	- [n_7]
Bacn	eior s	s [n=7]

2024/8 - 2025/4 Henrique De Freitas Serra (In Progress), Centro Universitário Estácio de Ribeirão Preto

Principal Supervisor Student Degree Start Date: 2024/8

Thesis/Project Title: Improving Ptidej Analyses

2024/5 - 2024/8 Armand Magelland Dim Dim (Completed), ÉTS

Co-Supervisor Student Degree Start Date: 2024/5

Student Degree Received Date: 2024/8

Thesis/Project Title: Developping the WIMP Application with Smart Watches and Robots

2024/5 - 2024/8 Maximilien Blanchard-Bizien (Completed), ÉTS

Co-Supervisor Student Degree Start Date: 2024/5

Student Degree Received Date: 2024/8

Thesis/Project Title: Developping the WIMP Application with Smart Watches and Robots

2020/1 - 2020/4 Pascal Archambault (Completed), Concordia University

Principal Supervisor Student Degree Start Date: 2020/1

Student Degree Received Date: 2020/4

Thesis/Project Title: *Automated Bill Recognition System (Internship)*Present Position: Ph.D. Student at Université de Montréal, QC, Canada

2019/5 - 2019/6 Nellybett Andrea (Completed), Concordia University

Principal Supervisor Student Degree Start Date: 2019/5

Student Degree Received Date: 2019/6

Thesis/Project Title: *Kapua and Kura (Internship)* Present Position: Living in Toronto, ON, Canada

2018/5 - 2018/8 Pascal Archambault (Completed), Concordia University

Principal Supervisor Student Degree Start Date: 2018/5

Student Degree Received Date: 2018/8

Thesis/Project Title: Open-source Web Browser for Embedded/Low-consumption

Hardware (Internship with NSERC USRA)

Present Position: Ph.D. Student at Université de Montréal, QC, Canada

2017/6 - 2017/8 Raphaël Bissonnette (Completed), Concordia University

Principal Supervisor Student Degree Start Date: 2017/6

Student Degree Received Date: 2017/8

Thesis/Project Title: Open Data Infrastructure (Internship)

Present Position: Unknown

Bachelor's Equivalent [n=9]

2023/7 - 2023/8 Mathis Goichon (Completed), Institut national des sciences appliquées de Lyon, France

Principal Supervisor Student Degree Start Date: 2023/7

Student Degree Received Date: 2023/8

Thesis/Project Title: Servicisation and Web Internface for Ptidej (Internship)

Present Position: Software engineer at Orange

2022/7 - 2022/9 Timothé Verstraete (Completed), Institut national des sciences appliquées de Lyon,

Principal Supervisor France

Student Degree Start Date: 2022/7 Student Degree Received Date: 2022/9 Thesis/Project Title: WIMP Project (Internship)

Present Position: DevOps and Cloud Engineer at AVISTO, France

2019/7 - 2019/11 Thibault Lamonier (Completed), École des hautes études d'ingénieur, Lille, France

Principal Supervisor Student Degree Start Date: 2019/7

Student Degree Received Date: 2019/11

Thesis/Project Title: *Multi-language Parsers for PADL (Internship)*Present Position: Consultant Cyber Risk and Security, France

2019/4 - 2019/7 Palmyre Würtz-Baroth (Completed), École Polytechnique, Paris, France

Principal Supervisor Student Degree Start Date: 2019/4

Student Degree Received Date: 2019/7

Thesis/Project Title: *P-MARt for Multi-language Patterns (Internship)*Present Position: Tool and Operations Project Manager at SNCF, France

2017/6 - 2017/8 Jean Rublé (Completed), École nationale supérieure d'informatique pour l'industrie et

Principal Supervisor l'entreprise, Évry, France

Thesis/Project Title: *Linguistic Antipatterns (Internship)*Present Position: DevOps Engineer at Orange, Paris, France

2017/5 - 2017/8 Dipti Ranjan Sahu (Completed), Indian Institute of Technology Bombay, Mumbai, MH,

Principal Supervisor India

Student Degree Start Date: 2017/6 Student Degree Received Date: 2017/8

Thesis/Project Title: Open Data Infrastructure (Internship with MITACS Globalink)

Present Position: Unknown

2017/5 - 2017/8 Julien Hebmann (Completed), Polytech Montpellier, France

Principal Supervisor Student Degree Start Date: 2017/5

Student Degree Received Date: 2017/8

Thesis/Project Title: JavaScript in NetSurf (Internship)
Present Position: Software Engineer in Montpellier, France

2017/5 - 2017/8 Niverthan Panchalingam (Completed), Polytech Paris, France

Principal Supervisor Student Degree Start Date: 2017/5

Student Degree Received Date: 2017/8

Thesis/Project Title: JavaScript in NetSurf (Internship)

Present Position: Functional Verification and Validation Engineer at MBDA, Le Plessis-

Robinson, France

2017/1 - 2017/5 Zichao Deng (Completed) , Nanyang Technological University, Singapore

Principal Supervisor Student Degree Start Date: 2017/1

Student Degree Received Date: 2017/5

Thesis/Project Title: Improving Brunch (Internship with MITACS Globalink)

Present Position: Unknown

Master's Equivalent [n=2]

2019/5 - 2019/6 Gleison Brito (Completed), Federal University of Minas Gerais, Belo Horizonte, MG, Brazil

Principal Supervisor Student Degree Start Date: 2019/5

Student Degree Received Date: 2019/6

Thesis/Project Title: REST and GraphQL (Internship)

Present Position: Technical Education Teacher at Proz, São Paulo, SP, Brazil

2019/5 - 2019/8 João Eduardo Montandon (Completed), Federal University of Minas Gerais, Belo

Principal Supervisor Horizonte, MG, Brazil

Student Degree Start Date: 2019/5 Student Degree Received Date: 2019/8

Thesis/Project Title: Developers' Characteristics (Internship)

Present Position: Seeking Research Position at a University in Portugal

Master's non-Thesis [n=6]

2018/9 - 2019/8 Vaibhav Jain (Completed), Concordia University

Principal Supervisor Student Degree Start Date: 2018/9

Student Degree Received Date: 2019/8

Thesis/Project Title: MQTT for IoT (Informal Collaboration)

Present Position: Senior Software Engineer at Wayfair, Toronto, ON, Canada

2018/5 - 2018/8 Satnam Singh (Completed), Concordia University

Principal Supervisor Student Degree Start Date: 2018/5

Student Degree Received Date: 2018/8

Thesis/Project Title: Seodin: An Open Data Infrastructure (Internship)
Present Position: Senior ML Engineer at OpenText, Waterloo, ON, Canada

2018/5 - 2018/8 Adrien Poupa (Completed), Concordia University

Principal Supervisor Student Degree Start Date: 2018/5

Student Degree Received Date: 2018/8

Thesis/Project Title: A C# PADL Creator (Internship)

Present Position: Technical Lead at Turbulent, Montréal, QC, Canada

2018/5 - 2018/8 Urmil Kansara (Completed), Concordia University

Principal Supervisor Student Degree Start Date: 2018/5

Student Degree Received Date: 2018/8

Thesis/Project Title: A Java Implementation of the Little Computer People (Internship)

Present Position: Technical Lead at Tech Mahindra, Toronto, ON, Canada

2018/5 - 2018/8 Vaibhav Jain (Completed), Concordia University

Principal Supervisor Student Degree Start Date: 2018/5

Student Degree Received Date: 2018/8

Thesis/Project Title: A Java Implementation of the Little Computer People (Internship)

Present Position: Senior Software Engineer at Wayfair, Toronto, ON, Canada

2018/5 - 2018/8 Tejas Sadrani (Completed), Concordia University

Principal Supervisor Student Degree Start Date: 2018/5

Student Degree Received Date: 2018/8

Thesis/Project Title: A Java Implementation of the Little Computer People (Internship) Present Position: Software Engineer at PointClickCare, Mississauga, Ontario, Canada

#### Master's Thesis [n=34]

2024/9 - 2025/8 Luca Scistri (In Progress), Concordia University

Principal Supervisor Student Degree Start Date: 2024/9

Thesis/Project Title: API Analysis of IoT Systems

Present Position: M.Sc. Student

2024/9 - 2025/8 Rushin Makwana (In Progress), Concordia University

Principal Supervisor Student Degree Start Date: 2024/9

Thesis/Project Title: Middleware Data Visualisation

Present Position: M.Sc. Student

2024/5 - 2024/8 Vishnu Rameshbabu (Completed), Concordia University

Principal Supervisor Student Degree Start Date: 2024/5

Student Degree Received Date: 2024/8

Thesis/Project Title: Improving the Ptidej Tool Suite with PlantUML and Other Features

2024/1 - 2025/12 Laurent Voisard (In Progress), Concordia University

Principal Supervisor Student Degree Start Date: 2024/1

Thesis/Project Title: Understanding Game Architectures and Player Experience

Present Position: M.Sc. Student

2024/1 - 2025/12 Nicolas Rousse (In Progress), Concordia University

Principal Supervisor Student Degree Start Date: 2024/1

Thesis/Project Title: Memory Protection in Highly Dynamic Operating Systems

Present Position: M.Sc. Student

2022/9 - 2024/7 Farideh Sanei (Completed), Concordia University

Principal Supervisor Student Degree Start Date: 2022/9

Student Degree Received Date: 2024/7
Thesis/Project Title: Quality of IoT Systems

2022/1 - 2023/12 Gabriel Ullmann (In Progress), Concordia University

Principal Supervisor Student Degree Start Date: 2022/1

Thesis/Project Title: Studying Game Engine Architectures

Present Position: M.Sc. Student

2021/9 - 2024/4 Nour Khezemi (Completed), ÉTS Co-Supervisor Student Degree Start Date: 2021/9

Student Degree Received Date: 2024/4

Thesis/Project Title: Study of IoT System Architectural Styles and their Quality

Requirements

2020/1 - 2023/3 Jianbin Lai (Completed), Concordia University

Principal Supervisor Student Degree Start Date: 2020/1

Student Degree Received Date: 2024/3

Thesis/Project Title: CoAP and MQTT IoT APIs Comparisons

2020/1 - 2021/11 Mohammad Nazemi (Completed), Concordia University

Principal Supervisor Student Degree Start Date: 2020/1

Student Degree Received Date: 2021/11

Thesis/Project Title: Implementing a Library to Calculate Surrogate Safety Measures

(MITACS Funding)

Present Position: Software engineer, BlueCity Technology, Montréal, QC, Canada

2019/9 - 2021/2 Rafik Tighilt (Completed), UQÀM
Co-Supervisor Student Degree Start Date: 2019/9

Student Degree Received Date: 2021/2

Thesis/Project Title: Assistance à la maintenance et à l'évolution des logiciels via l'identification automatique d'anti-patrons dans les architectures à base de

microservices (FRQNT Master's Research Scholarship)

Present Position: Software engineer, Morgan Stanley, Montréal, QC, Canada

2019/6 - 2021/8 Principal Supervisor Tuan Van Tran (Completed), Concordia University

Student Degree Start Date: 2019/6

Student Degree Received Date: 2021/7

Thesis/Project Title: Formalising Solutions to REST API Practices as Design

(Anti)patterns

Present Position: Software engineer, CoreLogic, Toronto, ON, Canada

2017/9 - 2018/12 Co-Supervisor Antoine Barbez (Completed), Polytechnique Montréal

Student Degree Start Date: 2017/9 Student Degree Received Date: 2018/12

Student Degree Received Date. 2010/12

Thesis/Project Title: Deep Learning Structural and Historical Features for Anti

**Patterns Detection** 

Present Position: Computer Vision Research Engineer, Parkopedia, Montréal, QC,

Canada

2016/9 - 2018/5

Atefeh Meshinchi (Completed), Polytechnique Montréal

Co-Supervisor Student Degree Start Date: 2016/9

Student Degree Received Date: 2018/5

Thesis/Project Title: QoS-aware Adaptive Resource Allocation Framework in SDN-

based IoT Middleware

Present Position: Senior Technical Manager, Bell IoT, Montréal, QC, Canada

2016/5 - 2018/1

Rim Ben Dhaou (Completed), École de technologie supérieure

Co-Supervisor

Student Degree Start Date: 2016/5 Student Degree Received Date: 2018/1

Thesis/Project Title: Modélisation de systèmes avioniques avec AADL (NSERC CRD

Fundina)

Present Position: Software Consultant, Nexio, Montréal, QC, Canada

2016/5 - 2017/12

Mahdis Zolfagharinia (Completed), Polytechnique Montréal

Co-Supervisor

Student Degree Start Date: 2016/5 Student Degree Received Date: 2017/12

Thesis/Project Title: The Impact of Operating Systems and Environments on Build

**Results** 

Present Position: ERP Project Manager, Lamour, Montréal, QC, Canada

2015/1 - 2016/8

Béchir Bani (Completed), Polytechnique Montréal

Co-Supervisor

Student Degree Start Date: 2014/5 Student Degree Received Date: 2016/8

Thesis/Project Title: The Impact of Cloud Patterns and Databases on the Energy

**Consumption of Cloud Applications** 

Present Position: Business Intelligence Engineer, Ubisoft Montréal

2011/1 - 2012/8

Étienne Duclos (Completed), Polytechnique Montréal

Co-Supervisor Student Degree Start Date: 2011/1

Student Degree Received Date: 2012/8

Thesis/Project Title: ACRE : un générateur automatique d'aspect pour tester des

logiciels écrits en C++

Present Position: Automation Engineer, Intel Security

2010/1 - 2012/12 Neelesh Bhattacharya (Completed) , Polytechnique Montréal

Co-Supervisor Student Degree Start Date: 2009/9

Student Degree Received Date: 2012/12

Thesis/Project Title: Test Data Generation for Exposing Interference Bugs in Multi-

threaded Systems

Present Position: Financial Solutions Analyst, BNP Paribas

2010/1 - 2012/12 Ferdaous Boughanmi (Completed) , Polytechnique Montréal Student Degree Start Date: 2008/9

Student Degree Received Date: 2012/12

Thesis/Project Title: Source Code and License Statement Co-evolution

Present Position: Lecturer, Cégep Bois-de-Bologne

2008/9 - 2010/11 Marwen Abbes (Completed), Polytechnique Montréal

Principal Supervisor Student Degree Start Date: 2008/9

Student Degree Received Date: 2010/11

Thesis/Project Title: Impact of Antipatterns on Program Comprehension

2007/9 - 2009/12 Julien Tanteri (Completed) , Université de Montréal

Principal Supervisor Student Degree Start Date: 2007/9

Student Degree Received Date: 2009/12

Thesis/Project Title: Visualisation of Software Histories

Present Position: Directeur du développement de logiciels chez Photon etc.

2007/9 - 2009/12 Mathieu Lemoine (Completed) , Université de Montréal

Principal Supervisor Student Degree Start Date: 2007/5

Student Degree Received Date: 2009/10

Thesis/Project Title: Refatorings and Traceability

2007/9 - 2008/8 Yousra Tagmouti (Completed) , Université de Montréal

Principal Supervisor Student Degree Start Date: 2006/9

Student Degree Received Date: 2008/7

Thesis/Project Title: Generating Source Code from Patterns to Hardware Systems

2007/5 - 2009/12 Wei Wu (Completed) , Université de Montréal

Principal Supervisor Student Degree Start Date: 2007/9

Student Degree Received Date: 2009/12 Thesis/Project Title: **Framework Evolution** Present Position: Software Developer, SAP

2007/5 - 2008/8 Paul Bertrand (Completed), Université de Montréal

Principal Supervisor Student Degree Start Date: 2007/1

Student Degree Received Date: 2008/7

Thesis/Project Title: Study of the Usability of PocketPC

2006/9 - 2008/9 Gerardo Cepeda (Completed), Université de Montréal

Principal Supervisor Student Degree Start Date: 2007/9

Student Degree Received Date: 2008/8

Thesis/Project Title: **Study of UML-based Program Comprehension**Present Position: DevOps, Evangelist, Awesomeness Enabler, Desjardins

2006/9 - 2008/9 Norddin Habti (Completed), Université Montréal

Principal Supervisor Student Degree Start Date: 2006/5

Student Degree Received Date: 2008/8

Thesis/Project Title: Static Analysis of the Composition Relation

2006/9 - 2008/7 Janice Ka-Yee Ng (Completed) , Université Montréal

Principal Supervisor Student Degree Start Date: 2004/9

Student Degree Received Date: 2008/6

Thesis/Project Title: Modelling and Detecting the Behaviour of Design Patterns

2004/9 - 2006/4 Jean-Yves Guyomarc'h (Completed) , Université de Montréal

Principal Supervisor Student Degree Start Date: 2004/9

Student Degree Received Date: 2006/4

Thesis/Project Title: Studying the Quality of Aspect-oriented Source Code

Present Position: Development Manager at SAP

2004/9 - 2005/8 Samah Rached (Completed) , Université de Montréal

Principal Supervisor Student Degree Start Date: 2003/9 Student Degree Received Date: 2005/10

Thesis/Project Title: Visualisation du comportement des programmes par matrices

d'adjacence

2004/9 - 2007/2 Saliha Bouden (Completed) , Université Montréal

Principal Supervisor Student Degree Start Date: 2003/9

Student Degree Received Date: 2007/2

Thesis/Project Title: Coarse-grain (Non-)Behavior Preserving Refactorings

2004/1 - 2005/8 Olivier Kaczor (Completed) , Université de Montréal

Co-Supervisor Student Degree Start Date: 2004/9

Student Degree Received Date: 2006/4

Thesis/Project Title: Design Pattern Identification using Bio-informatics Algorithms

2003/9 - 2005/8 Khashayar Khosravi (Completed) , Université de Montréal

Principal Supervisor Student Degree Start Date: 2003/9

Student Degree Received Date: 2005/10

Thesis/Project Title: Design-patterns-enabled Object-oriented Metrics

Doctorate [n=32]

2022/9 - 2026/8 Sikander Ejaz (In Progress), Concordia University

Co-Supervisor Student Degree Start Date: 2022/9

Thesis/Project Title: Design and Implementation of an IoT Middleware for Cities of the

**Future** 

Present Position: Ph.D. Student

2022/6 - 2022/12 José Eduardo Cardoza Plata (Completed), Instituto Politécnico Nacional, Mexico City,

Principal Supervisor Mexico

Student Degree Start Date: 2022/6 Student Degree Received Date: 2022/12 Thesis/Project Title: WIMP Project (Internship)

Present Position: Ph.D. Student

2022/5 - 2026/12 Brahim Mahmoudi (In Progress), ÉTS Co-Supervisor Student Degree Start Date: 2022/5

Thesis/Project Title: Business-oriented Identification of Microservices in Legacy Monolithic

Systems

Present Position: Ph.D. Student

2021/5 - 2025/12 Peter Yefi (In Progress), Concordia University

Principal Supervisor Student Degree Start Date: 2021/5

Thesis/Project Title: Designing IoT Systems for Sustainability

Present Position: Ph.D. Student

2021/5 - 2025/4 Jean Baptiste Minani (In Progress) , Concordia University

Principal Supervisor Student Degree Start Date: 2021/5

Thesis/Project Title: Testing IoT Systems

Present Position: Ph.D. Student

2021/1 - 2024/12 Imen Trabelsi (In Progress), ÉTS Co-Supervisor Student Degree Start Date: 2021/1

Thesis/Project Title: Unsupervised Learning for Microservices Migration

Present Position: Ph.D. Student

2020/1 - 2025/12 Belal Nwiran (In Progress), Concordia University

Co-Supervisor Student Degree Start Date: 2020/1

Thesis/Project Title: Action Recognition in the Edge for Drone Control

Present Position: Ph.D. Student

2018/5 - 2022/6 Cristiano Politowski (Completed) , Concordia University

Principal Supervisor Student Degree Start Date: 2018/5

Thesis/Project Title: Improving Video Game Balance Testing Using Autonomous

**Agents** 

Present Position: Post-doc., GEODES, DIRO, Université de Montréal, QC, Canada

2017/9 - 2023/5 Layan Etaiwi (Completed) , Polytechnique Montréal

Co-Supervisor Student Degree Start Date: 2017/9

Thesis/Project Title: Consensus-based Recommendation Technique for Software

**Engineering Applications**Present Position: Job Seeker

2017/9 - 2018/8 Diana El-Masri (Withdrawn), Polytechnique Montréal

Co-Supervisor Student Degree Start Date: 2017/9

Thesis/Project Title: Log for IoT Systems

2017/9 - 2023/5 William Flageol (Completed), Concordia University

Principal Supervisor Student Degree Start Date: 2017/9

Thesis/Project Title: Improving Object Oriented Programming by Integrating

Language Features to Support Immutability (FRQNT Doctoral Research Scholarship)

Present Position: Lecturer, Université du Québec à Trois-Rivières, QC, Canada

2017/5 - 2017/8 Fatima Sabir (Completed) , COMSATS Institute of Information Technology Lahore

Co-Supervisor Student Degree Start Date: 2017/5 Student Degree Received Date: 2017/8

Thesis/Project Title: Detection of Antipatterns from Service Oriented Architecture

Present Position: Professor, University of the Punjab, PB, Pakistan

2016/5 - 2021/7 Manel Abdellatif (Completed) , Polytechnique Montréal

Principal Supervisor Student Degree Start Date: 2016/5

Student Degree Received Date: 2021/7

Thesis/Project Title: Service Identification to Support the Migration of Legacy

Systems to SOA (FRQNT Doctoral Research Scholarship)

Present Position: Institutional Researcher, École de technologie supérieure, Montréal, QC,

Canada

2015/9 - 2017/4 Fabio Petrillo (Completed) , Universidade Federal do Rio Grande do Sul

Co-Supervisor Student Degree Start Date: 2015/9

Student Degree Received Date: 2016/8

Thesis/Project Title: Swarm Debugging: the Collective Debugging Intelligence of the

Crowd

Present Position: Professor, École de technologie supérieure, Montréal, QC, Canada

2015/1 - 2019/7 Zeinab Kermansaravi (Completed) , Polytechnique Montréal

Principal Supervisor Student Degree Start Date: 2015/1

Student Degree Received Date: 2019/7

Thesis/Project Title: Linguistic Anti-patterns: Impact Analysis on Code Quality

Present Position: Job Seeker

2014/9 - 2017/12 Rubén Saborido-Infantes (Completed) , Polytechnique Montréal

Co-Supervisor Student Degree Start Date: 2014/9

Student Degree Received Date: 2017/4

Thesis/Project Title: Assisting Developers and Users in Developing and Choosing

**Efficient Mobile Device Apps** 

Present Position: Researcher, Department of Computer Science and Programming

Languages, University of Malaga, Spain

2011/9 - 2015/8 Francis Palma (Completed) , Polytechnique Montréal

Principal Supervisor Student Degree Start Date: 2011/9
Student Degree Received Date: 2015/8

Thesis/Project Title: Unifying Service Oriented Technologies for the Specification and

**Detection of their Antipatterns** 

Present Position: Professor at University of New Brunswick

2011/1 - 2015/12 Zépyrin Soh (Completed) , Polytechnique Montréal

Principal Supervisor Student Degree Start Date: 2010/9

Student Degree Received Date: 2015/12

Thesis/Project Title: Improving Program Comprehension and Recommendation

**Systems using Developers' Context** 

Present Position: Software Developer, Adacel

2010/9 - 2014/11 Soumaya Medini (Completed) , Polytechnique Montréal

Principal Supervisor Student Degree Start Date: 2010/9

Student Degree Received Date: 2014/11

Thesis/Project Title: Concepts Extraction from Execution Traces

Present Position: Lecturer

2010/9 - 2015/5 Zohreh Sharafi (Completed), Polytechnique Montréal

Principal Supervisor Student Degree Start Date: 2010/9

Student Degree Received Date: 2015/5

Thesis/Project Title: On the Influence of Representation Type and Gender on

**Recognition Tasks of Program Comprehension**Present Position: Professor at Polytechnique Montréal

2010/5 - 2014/12 Wei Wu (Completed) , Polytechnique Montréal

Principal Supervisor Student Degree Start Date: 2010/5

Student Degree Received Date: 2014/12

Thesis/Project Title: Understanding and Tooling Framework API Evolution

Present Position: Software Developer, SAP

2010/1 - 2014/12 Abdelilah Sakti (Completed) , Polytechnique Montréal

Co-Supervisor Student Degree Start Date: 2010/9

Student Degree Received Date: 2014/12

Thesis/Project Title: Automatic Test Data Generation using Constraint Programming

and Search Based Software Engineering Techniques

Present Position: Senior Research Scientist, United Technologies Research Center

2009/9 - 2012/7 Nasir Ali (Completed) , Polytechnique Montréal

Principal Supervisor Student Degree Start Date: 2009/9

Student Degree Received Date: 2012/12

Thesis/Project Title: Analysing Source Code Structure and Mining Software

Repositories to Create Requirements Traceability Links

Present Position: Development Specialist, Strategic Mobility Group

2009/9 - 2015/12 Aminata Sabané (Completed) , Polytechnique Montréal

Principal Supervisor Student Degree Start Date: 2009/9

Student Degree Received Date: 2015/12

Thesis/Project Title: Reducing Object-oriented Testing through the Analysis of

**Antipatterns** 

Present Position: Directrice générale de l'Agence nationale de promotion des TIC au

Burkina Faso

2009/9 - 2013/12 Fehmi Jaafar (Completed) , Université de Montréal

Principal Supervisor Student Degree Start Date: 2009/9

Student Degree Received Date: 2013/12

Thesis/Project Title: Analysing Artefacts Dependencies to Evolving Software

**Systems** 

Present Position: Professor at UQAC

2009/9 - 2014/8 Venera Arnaoudova (Completed) , Polytechnique Montréal

Principal Supervisor Student Degree Start Date: 2009/9

Student Degree Received Date: 2014/8

Thesis/Project Title: Towards Improving the Code Lexicon and its Consistency

Present Position: Professor at Washington State University

2009/9 - 2013/8 Latifa Guerrouj (Completed), Polytechnique Montréal

Co-Supervisor Student Degree Start Date: 2009/5

Student Degree Received Date: 2013/8

Thesis/Project Title: Context-aware Source Code Vocabulary Normalization for

**Software Maintenance** 

Present Position: Professor at ÉTS

2009/5 - 2015/12 Laleh Eshkevari (Completed) , Polytechnique Montréal

Co-Supervisor Student Degree Start Date: 2009/9

Student Degree Received Date: 2015/12

Thesis/Project Title: Automatic Detection and Classification of Identifiers

Present Position: Software engineer

2008/9 - 2012/11 Abdou Maiga (Completed) , Université de Montréal

Principal Supervisor Student Degree Start Date: 2008/9

Student Degree Received Date: 2012/11

Thesis/Project Title: Impact and Detection of Design Smells

Present Position: Director of IT, Ministry of Higher Education and Scientific Research,

**Ivory Coast** 

2007/9 - 2012/12 Salima Hassaine (Completed) , Université de Montréal

Principal Supervisor Student Degree Start Date: 2007/9

Student Degree Received Date: 2012/12

Thesis/Project Title: Evaluating Design Decay during Software Evolution

2006/9 - 2010/8 Foutse Khomh (Completed), Université Montréal

Principal Supervisor Student Degree Start Date: 2006/9

Student Degree Received Date: 2010/8

Thesis/Project Title: A Design-aware Quality Model Present Position: Professor at Polytechnique Montréal

2005/9 - 2008/8 Naouel Moha (Completed), Université de Montréal

Principal Supervisor Student Degree Start Date: 2005/5

Student Degree Received Date: 2008/8

Thesis/Project Title: Classification, Identification, and Correction of Design Defects

Present Position: Professor at ÉTS

Post-doctorate [n=11]

2022/5 - 2022/12 Majid Babaei (Completed), Concordia University

Principal Supervisor Student Degree Start Date: 2022/5

Student Degree Received Date: 2022/12

Thesis/Project Title: Automated Robustness Testing Framework for State Machines

Present Position: Faculty Lecturer, Technology & Innovation, School of Continuing

Studies, McGill University, Montréal, QC, Canada

2020/3 - 2020/7 Benjamin Benni (Completed), Concordia University

Principal Supervisor Student Degree Start Date: 2020/3

Student Degree Received Date: 2020/7

Thesis/Project Title: Software Engineering Drones for Emergency Responses

Present Position: Software Engineer, Instant System, Biot, France

2020/3 - 2021/12 Fatima Sabir (Completed), Concordia University

Principal Supervisor Student Degree Start Date: 2020/3

Thesis/Project Title: Software Engineering Drones for Emergency Responses

Present Position: Professor, University of the Punjab, PB, Pakistan

2018/6 - 2018/12 Rodrigo Morales (Completed), Concordia University

Principal Supervisor Student Degree Start Date: 2018/6

Student Degree Received Date: 2018/12

Thesis/Project Title: Improving Software Quality of IoT Systems through Refactorings

Present Position: Lecturer, Concordia University, Montréal, QC, Canada

2018/6 - 2018/12 Rubén Saborido-Infantes (Completed), Concordia University

Principal Supervisor Student Degree Start Date: 2018/5

Student Degree Received Date: 2018/12

Thesis/Project Title: Search Based Software Engineering for IoT Software

**Optimisation** 

Present Position: Researcher, Department of Computer Science and Programming

Languages, University of Malaga, Spain

2017/9 - 2018/12 Md Saidur Rahman (Completed) , Polytechnique Montréal

Co-Supervisor Student Degree Start Date: 2017/9

Student Degree Received Date: 2018/12

Thesis/Project Title: Applying Machine Learning Techniques to the Identification and

**Correction of Anomalies in Data** 

Present Position: Senior R&D Data Scientist, Desjardins, Montréal, QC, Canada

2016/12 - 2017/7 Anas Shatnawi (Completed), UQÀM Co-Supervisor Student Degree Start Date: 2016/12

Student Degree Start Date. 2016/12

Student Degree Received Date: 2017/7

Thesis/Project Title: Service-oriented Reengineering

Present Position: Senior R&D Software Engineer, Berger-Levrault, Montpellier, France

2015/4 - 2016/2 Carla De Monteiro Marques (Completed) , Polytechnique Montréal

Co-Supervisor Student Degree Start Date: 2014/9

Student Degree Received Date: 2016/2

Student Canadian Residency Status: Work Permit Thesis/Project Title: **Anti-patterns in Networks** 

Present Position: Professor, Centro Universitário de João Pessoa, Brazil

2015/4 - 2016/2 Henrique Jorge Amorim Holanda (Completed) , Polytechnique Montréal

Principal Supervisor Student Degree Start Date: 2014/9

Student Degree Received Date: 2016/2

Student Canadian Residency Status: Work Permit

Thesis/Project Title: Anti-patterns in Service-based Application

Present Position: Professor, Centro Universitário de João Pessoa, Brazil

2013/1 - 2013/12 Ségla Kpodjedo (Completed) , Polytechnique Montréal

Principal Supervisor Student Degree Start Date: 2013/1

Student Degree Received Date: 2013/12 Thesis/Project Title: **Graph Matching** Present Position: Professor at ÉTS

2007/9 - 2008/8 Denier Simon (Completed) , Université de Montréal

Principal Supervisor Student Degree Start Date: 2007/9

Student Degree Received Date: 2009/8

Thesis/Project Title: **Design Pattern Composition** 

Present Position: Software Engineer, Sogilis

Diploma [n=1]

2022/6 - 2022/7 Martin Lecourt (Completed) , Lycée Louis-le-Grand, France

Principal Supervisor Student Degree Start Date: 2022/6

Student Degree Received Date: 2022/7

Thesis/Project Title: Observational Internship (Internship)

Present Position: Diploma Student

Research Associate [n=7]

2024/8 - 2024/12 Florent Herbinger (In Progress), University of Victoria

Principal Supervisor Student Degree Start Date: 2024/8

Thesis/Project Title: CityLayers

Present Position: Research Associate

2024/3 - 2025/4 Meyo Zongo (In Progress), Concordia University

Principal Supervisor Student Degree Start Date: 2024/3

Thesis/Project Title: SLR on Mobile Security

Present Position: Research Associate

2023/5 - 2023/6 Elhachemi Alikacem (Completed), Concordia University

Principal Supervisor Student Degree Start Date: 2023/5

Student Degree Received Date: 2023/6

Thesis/Project Title: Development of a Mock-up Factory

Present Position: Lecturer at École de technologie supérieure, Montréal, QC, Canada

2017/9 - 2018/8 Fábio Petrillo (Completed) , Concordia University

Principal Supervisor Student Degree Start Date: 2017/9

Student Degree Received Date: 2018/8

Thesis/Project Title: Alleviating the New Software Engineering Crisis

Present Position: Professor, École de technologie supérieure, Montréal, QC, Canada

2009/1 - 2009/8 Yousra Tagmouti (Completed) , Université de Montréal

Principal Supervisor Student Degree Start Date: 2009/5

Student Degree Received Date: 2009/12

Thesis/Project Title: Maintaining an Eye-tracking Infrastructure

Present Position: Lecturer, Collège de Maisonneuve

2008/9 - 2010/11 Marwen Abbes (Completed) , Polytechnique Montréal

Principal Supervisor Student Degree Start Date: 2011/1

Student Degree Received Date: 2011/4

Thesis/Project Title: Impact of Antipatterns on Program Comprehension

Present Position: Senior Software Architect / Developer, Domum Link

2008/9 - 2009/8 Gerardo Cepeda (Completed) , Université de Montréal

Principal Supervisor Student Degree Start Date: 2008/9

Student Degree Received Date: 2008/12

Thesis/Project Title: Eye-tracking and UML Class Diagrams

Present Position: DevOps, Evangelist, Awesomeness Enabler, Desjardins

#### Level Not Specified [n=1]

2022/5 - 2024/4 Yahia El Fellah (Completed), ÉTS Co-Supervisor Student Degree Start Date: 2022/5

Student Degree Received Date: 2024/4

Thesis/Project Title: Optimisation des performances des systèmes IdO basés sur les

microservices grâce aux meilleures pratiques : revue et étude empirique

## **Staff Supervision**

### **Event Administration**

2023/9 - 2024/7	Co-organiser, 3rd International Workshop on Automated Software Engineering for Computer Games (ASE4Games'24) with ASE'24, Workshop, 2024/7 - 2024/7
2023/5 - 2024/6	Co-organiser and Lecturer, ReAnimate: 2024 Summer School on Retro Gaming History, Critic, and Development, Course, 2024/6 - 2024/6
2023/9 - 2024/4	Co-organiser, 6th International Workshop on Software Engineering Research and Practices for the Internet of Things (SERP4IoT'24) with ICSE'24, Workshop, 2024/4 - 2024/4
2019/9 - 2024/4	Steering Committee Member, International Workshop on Software Engineering Research and Practices for the Internet of Things (SERP4IoT), Workshop, 2019/9 - 2024/4
2022/9 - 2023/5	Co-organiser, 5th International Workshop on Software Engineering Research and Practices for the Internet of Things (SERP4IoT'23) with ICSE'23, Workshop, 2023/5 - 2023/5
2021/11 - 2022/10	Co-organiser, 2nd International Workshop on Automated Software Engineering for Computer Games (ASE4Games'22) with ASE'22, Workshop, 2022/10 - 2022/10
2021/9 - 2022/5	Co-organiser, 4th International Workshop on Software Engineering Research and Practices for the Internet of Things (SERP4IoT'22) with ICSE'22, Workshop, 2022/5 - 2022/5
2020/11 - 2021/11	Co-organiser, 1st International Workshop on Automated Software Engineering for

Computer Games (ASE4Games'21) with ASE'21, Workshop, 2021/11 - 2021/11

2020/9 - 2021/5	Co-organiser, 3rd International Workshop on Software Engineering Research and Practices for the Internet of Things (SERP4IoT'21) with ICSE'21, Workshop, 2021/5 - 2021/5
2019/4 - 2020/12	Program Co-chair, 28th IEEE/ACM International Conference on Program Comprehension (ICPC'20), Conference, 2020/7 - 2020/7
2019/9 - 2020/5	Co-organiser, 2nd International Workshop on Software Engineering Research and Practices for the Internet of Things (SERP4IoT'20) with ICSE'20, Workshop, 2020/5 - 2020/5
2017/5 - 2019/12	General Chair, 27th IEEE/ACM International Conference on Program Comprehension (ICPC'19), Conference, 2019/5 - 2019/5
2018/9 - 2019/5	Co-organiser, 1st International Workshop on Software Engineering Research and Practices for the Internet of Things (SERP4IoT'19) with ICSE'19, Workshop, 2019/5 - 2019/5
2015/5 - 2018/5	Steering Committee Member, International Conference on Program Comprehension (ICPC), Conference, 2015/5 - 2018/5
2014/3 - 2016/12	General Chair, 22nd IEEE International Conference on Software Analysis, Evolution and Reengineering (SANER'15), Conference, 2015/3 - 2015/3

## **Editorial Activities**

2020/5 - 2022/12 Editor in Chief, MDPI IoT, Journal

# **Organizational Review Activities**

2018/1 - 2026/12	Commissioner, Bureau de coopération interuniversitaire Committee for the Evaluation of Program Proposals ( <i>Commission d'évaluation des projets de programmes</i> in French)
2022/10 - 2023/9	Co-chair, IEEE CS TCSE Most Influential Paper Award At the 39th IEEE International Conference on Software Maintenance and Evolution (ICSME'23)
2023/3 - 2023/6	External Referee, Singapore Management University, Singapore Evaluated a dossier for a promotion to Full Professor
2023/5 - 2023/5	Reviewer, Mathematics of Information Technology and Complex Systems (MITACS) Provided external reports
2023/1 - 2023/1	Reviewer - Review Committee 1507 (Computer Science), Natural Sciences and Engineering Research Council of Canada (NSERC) Provided external reports
2022/4 - 2022/11	Reviewer, Mathematics of Information Technology and Complex Systems (MITACS) Provided external reports
2022/1 - 2022/6	External Referee, Université de Namur Evaluated a dossier for a promotion to Full Professor
2022/4 - 2022/4	External Referee, Institut National de Recherche en Informatique et Automatique (INRIA) Provided an external report to support a secondment (détachment in French)
2022/1 - 2022/1	Reviewer - Review Committee 1507 (Computer Science), Natural Sciences and Engineering Research Council of Canada (NSERC) Provided external reports

2021/8 - 2021/9	Reviewer - Alliance Grant, Natural Sciences and Engineering Research Council of Canada (NSERC) Provided external reports
2021/7 - 2021/8	External Referee, Concordia University Provided an external report for the Valedictorian Prize
2021/5 - 2021/7	External Referee, University of Alberta Evaluated a dossier for a promotion to Associate Professor
2020/5 - 2021/5	Jury Member, École Nationale des Sciences de l'Informatique, Tunisia For an accreditation to supervise research ( <i>Habilitation à diriger des recherches</i> in French)
2021/4 - 2021/4	Reviewer, Mathematics of Information Technology and Complex Systems (MITACS) Provided external reports
2021/2 - 2021/2	Reviewer, Canada Research Chairs Provided an external report
2021/2 - 2021/2	Nominator, ACM Mining Software Repositories Conference Series (MSR)  Nominated a candidate for the Ric Holt Early Career Achievement Award
2020/2 - 2020/6	External Foreign Expert, Department of Computer Science, COMSATS University Islamabad, PB, Pakistan Evaluated a dossier for a promotion to Associate Professor on Permanent Tenure
2020/3 - 2020/4	Reviewer, Mathematics of Information Technology and Complex Systems (MITACS) Provided external reports
2020/1 - 2020/1	Reviewer, Swiss National Science Foundation Provided external reports
2020/1 - 2020/1	External Referee, Queen's University at Kingston, ON, Ontario, Canada Evaluated a dossier for the Distinguished University Professor program
2020/1 - 2020/1	Reviewer - Review Committee 1507 (Computer Science), Natural Sciences and Engineering Research Council of Canada (NSERC) Provided external reports
2019/7 - 2019/9	Promotion Referee, Carleton University, Ottawa, ON, Canada Evaluated a dossier for a promotion to Associate Professor
2019/5 - 2019/9	External Foreign Expert, Department of Computer Science, COMSATS University Islamabad, PB, Pakistan Evaluated a dossier for a promotion to Associate Professor on Permanent Tenure
2019/4 - 2019/8	Jury Member, Institut de Recherche en Informatique et Systèmes Aléatoires (IRISA) For an accreditation to supervise research (Habilitation à diriger des recherches in French)
2015/2 - 2019/5	Co-creator, Polytechnique Montréal, QC, Canada Joint Ph.D. program in Software Engineering between Polytechnique Montréal and Université de Montréal
2018/11 - 2019/1	External Foreign Expert, Department of Computer Science, COMSATS University Islamabad, PB, Pakistan Evaluated a dossier for a promotion to Associate Professor on Permanent Tenure
2018/11 - 2019/1	Reviewer - Review Committee 1507 (Computer Science), Natural Sciences and Engineering Research Council of Canada (NSERC) Provided external reports
2018/8 - 2018/11	External Referee, University of Calgary, AB, Canada Evaluated a dossier for a promotion to Full Professor

2018/8 - 2018/9	External Reviewer, University of Saskatchewan Evaluated a dossier for a promotion to Full Professor
2018/2 - 2018/4	Reviewer, Canada Research Chairs Provided an external report
2018/2 - 2018/3	Reviewer - CRD Grant, Natural Sciences and Engineering Research Council of Canada (NSERC) Provided external reports
2018/1 - 2018/3	Nominator, CS-Can/Info-Can Nominated a candidate for the Outstanding Young Computer Science Researcher prize
2018/1 - 2018/2	Nominator, ACM Mining Software Repositories Conference Series (MSR)  Nominated a candidate for the Early Career Achievement Award
2017/5 - 2017/5	External Referee, Singapore Management University, Singapore Evaluated a dossier for a promotion to Associate Professor
2017/2 - 2017/2	Referee, Heidelberg Laureate Forum Provided an external report to support the application of a young researcher

## **Community and Volunteer Activities**

2012/5 - 2016/4 Évaluateur, Natural Sciences and Engineering Research Council of Canada (NSERC)

## **International Collaboration Activities**

2020/1 - 2024/12	Co-investigator, Mexico Research collaborations with Carlos Colleo Colleo at the Center for Research and Advanced Studies of the National Polytechnic Institute, Mexico City, Mexico (Centro de Investigación y de Estudios Avanzados del Instituto Politécnico Nacional in Spanish)
2014/6 - 2024/12	Co-investigator, Japan Research collaborations with Hironori Washizaki at the Waseda University, Tokyo, Japan
2019/5 - 2023/12	Co-investigator, France Associated Team (Équipe associée in French) with Nicolas Anquetil and Stéphane Ducasse from the RMod Team at INRIA Lille, France

# **Committee Memberships**

2024/11 - 2025/1	Committee Member, Program Committee, 20th International Conference on Evaluation of Novel Approaches to Software Engineering (ENASE'25)
2024/11 - 2025/1	Committee Member, Program Committee, 13th International Conference on Formal Methods in Software Engineering (FormaliSE'25)
2024/11 - 2025/1	Committee Member, Program Committee, 33rd IEEE International Conference on Program Comprehension (ICPC'25)
2024/7 - 2024/9	Committee Member, Program Committee, 31st Asia-Pacific Software Engineering Conference (APSEC'24)
2024/7 - 2024/8	Committee Member, Program Committee, 1st International Workshop on Patterns and Practices of Reliable AI Engineering (AI-Pattern'24)
2024/5 - 2024/6	Committee Member, Program Committee, 4th International Workshop on MDE for Smart IoT Systems (MeSS'24)

	Di. Taliii Gaoi Gaoiloilea
2023/9 - 2024/6	Committee Member, Program Committee, 40th IEEE International Conference on Software Maintenance and Evolution (ICSME'24)
2024/2 - 2024/4	Committee Member, Program Committee, IEEE COMPSAC 2024 Smart IoT Symposium (SIoT'24)
2024/3 - 2024/3	Committee Member, Program Committee, 12th International Workshop of Eye Movements in Programming (EMIP'24)
2024/1 - 2024/2	Committee Member, Program Committee, 19th International Conference on Evaluation of Novel Approaches to Software Engineering (ENASE'24)
2023/11 - 2024/1	Committee Member, Program Committee, 12th International Conference on Mobile Software Engineering and Systems (MOBILESoft'24)
2023/3 - 2023/9	Committee Member, Reviewers, Elsevier Information and Software Technology (IST) Reviewed 2 articles (with multiple revisions)
2023/7 - 2023/8	Committee Member, Program Committee, 30th Asia-Pacific Software Engineering Conference (APSEC'23)
2023/3 - 2023/8	Committee Member, Reviewers, Springer Empirical Software Engineering (EMSE)  Reviewed 1 articles (with multiple revisions)
2023/4 - 2023/6	Committee Member, Program Committee, 39th IEEE International Conference on Software Maintenance and Evolution (ICSME'23)
2023/5 - 2023/5	Committee Member, Program Committee, 3rd International Workshop on MDE for Smart IoT Systems (MeSS'23)
2022/2 - 2023/5	Committee Member, Reviewers, Elsevier Information and Software Technology (IST) Reviewed 3 articles (with multiple revisions)
2018/9 - 2023/4	Chair, Department Hiring Committee for a Canada Research Chair, Concordia University
2018/9 - 2023/4	Chair, Department Hiring Committee for a Gina Cody Research Chair, Concordia University
2023/3 - 2023/3	Committee Member, Program Committee, 12th International Workshop on the Reliability of Intelligent Environments (WoRIE'23)
2023/3 - 2023/3	Committee Member, Program Committee, 11th International Workshop of Eye Movements in Programming (EMIP'23)
2023/1 - 2023/3	Committee Member, Reviewers, Springer Journal of Computer Science and Technology (JCST) Reviewed 1 article
2021/2 - 2022/11	Committee Member, Reviewers, IEEE Transactions on Software Engineering (TSE) Reviewed 2 articles (with multiple revisions)
2022/7 - 2022/8	Committee Member, Program Committee, 29th Asia-Pacific Software Engineering Conference (APSEC'22)
2022/2 - 2022/8	Committee Member, Reviewers, AITO Journal of Object Technology (JOT) Reviewed 2 articles
2021/12 - 2022/7	Committee Member, Reviewers, Wiley Journal of Software: Practice and Experience (JSPE) Reviewed 1 article (with multiple revisions)
2021/5 - 2022/7	Committee Member, Reviewers, Elsevier Journal of Systems and Software (JSS) Reviewed 2 articles (with multiple revisions)

	Di. Tahii Gadi Gadininaa
2022/6 - 2022/6	Committee Member, Reviewers, Springer Software Quality Journal (SQJ) Reviewed 1 article
2022/5 - 2022/5	Committee Member, Program Committee, 2nd International Workshop on MDE for Smart IoT Systems (MeSS'22)
2022/1 - 2022/3	Committee Member, Reviewers, IEEE Transactions on Dependable and Secure Computing (TDSC) Reviewed 1 article
2022/2 - 2022/2	Committee Member, Program Committee, 10th International Workshop of Eye Movements in Programming (EMIP'22)
2021/12 - 2022/2	Committee Member, Reviewers, Springer Empirical Software Engineering (EMSE) Reviewed 2 articles (with multiple revisions)
2021/10 - 2022/2	Committee Member, Reviewers, Elsevier Journal of Computer Languages (COLA) Reviewed 1 article
2021/4 - 2022/2	Committee Member, Reviewers, Springer Empirical Software Engineering (EMSE) Reviewed 3 articles (with multiple revisions)
2021/10 - 2021/12	Committee Member, New Ideas and Emerging Results (NIER) Program Committee, 44th IEEE/ACM International Conference on Software Engineering (ICSE'22)
2021/9 - 2021/11	Committee Member, Reviewers, AITO Journal of Object Technology (JOT) Reviewed 1 article
2020/9 - 2021/11	Committee Member, Reviewers, ACM Transactions on Software Engineering and Methodology (TOSEM) Reviewed 1 article (with multiple revisions)
2021/8 - 2021/8	Committee Member, Program Committee, 28th Asia-Pacific Software Engineering Conference (APSEC'21)
2020/11 - 2021/7	Committee Member, Reviewers, Springer Arabian Journal for Science and Engineering (AJSE) Reviewed 1 article (with multiple revisions)
2021/6 - 2021/6	Committee Member, Program Committee, 5th International Conference on Computer Science and Application Engineering (CSAE'21)
2021/6 - 2021/6	Committee Member, Reviewers, IEEE Access Reviewed 1 article
2021/5 - 2021/6	Committee Member, Reviewers, Springer Journal of Ambient Intelligence and Humanized Computing (JAIHC) Reviewed 1 article (with multiple revisions)
2021/5 - 2021/5	Committee Member, Program Committee, 1st International Workshop on MDE for Smart IoT Systems (MeSS'21)
2021/3 - 2021/4	Committee Member, Program Committee, 10th International Workshop on the Reliability of Intelligent Environments (WoRIE'21)
2021/1 - 2021/4	Committee Member, Reviewers, Elsevier Science of Computer Programming (SCP) Reviewed 1 article (with multiple revisions)
2020/3 - 2021/4	Committee Member, Reviewers, Elsevier Information and Software Technology (IST) Reviewed 1 article (with multiple revisions)
2021/3 - 2021/3	Committee Member, Petro-Canada Young Inovator Award (PCYIA), Concordia University
2021/3 - 2021/3	Committee Member, Program Committee, 8th International Workshop of Eye Movements in Programming (EMIP'21)

	21. Talli Gasi Gasilolload
2021/3 - 2021/3	Committee Member, University Research Awards (URAs), Concordia University
2021/3 - 2021/3	Committee Member, Program Committee, 45rd IEEE Computer Software and Applications Conference (COMPSAC'21)
2021/3 - 2021/3	Committee Member, Reviewers, Elsevier Information and Software Technology (IST) Reviewed 1 article (for a special issue)
2021/2 - 2021/3	Committee Member, RR (Registered Report) Program Committee, 18th International Working Conference on Mining Software Repositories (MSR'21)
2021/1 - 2021/2	Committee Member, Program Committee, 29th IEEE/ACM International Conference on Program Comprehension (ICPC'21)
2020/8 - 2020/9	Committee Member, Program Committee, 19th International Conference on Software and System Engineering (ICSR'20)
2020/7 - 2020/9	Committee Member, Program Committee, 27th Asia-Pacific Software Engineering Conference (APSEC'20)
2020/3 - 2020/9	Committee Member, Reviewers, Elsevier Expert Systems With Applications (ESWA) Reviewed 1 articles (with multiple revisions)
2020/1 - 2020/9	Committee Member, Reviewers, Elsevier Journal of Systems and Software (JSS) Reviewed 1 article (with multiple revisions)
2019/4 - 2020/9	Committee Member, Reviewers, Wiley Journal of Software: Evolution and Process (JSEP) Reviewed 3 articles (with multiple revisions)
2020/5 - 2020/5	Committee Member, Program Committee, 4th International Workshop on Model-Driven Engineering for the Internet-of-Things (MDE4IoT'20)
2020/1 - 2020/5	Committee Member, Best Thesis Award, CNRS GDR GPL Programming and Software Engineering Research Cluster of CNRS, France ( <i>Groupement de Recherche Génie de la Programmation et du Logiciel</i> in French)
2019/6 - 2020/5	Committee Member, Reviewers, Elsevier Information and Software Technology (IST) Reviewed 2 articles (with multiple revisions)
2020/2 - 2020/3	Committee Member, Program Committee, 44th IEEE Computer Software and Applications Conference (COMPSAC'20)
2020/2 - 2020/3	Committee Member, Research Award, Université du Québec à Montréal, QC, Canada
2020/2 - 2020/2	Committee Member, Program Committee, 7th International Workshop of Eye Movements in Programming (EMIP'20)
2019/8 - 2020/1	Committee Member, Reviewers, Springer Empirical Software Engineering (EMSE) Reviewed 2 articles (with multiple revisions)
2019/3 - 2020/1	Committee Member, Reviewers, Elsevier Journal of Systems and Software (JSS) Reviewed 1 article (with multiple revisions)
2019/3 - 2020/1	Committee Member, Reviewers, ACM Computing Surveys (CSUR) Reviewed 1 article (with multiple revisions)
2019/12 - 2019/12	Committee Member, Tools Program Committee, 27th IEEE International Conference on Software Analysis, Evolution and Reengineering (SANER'20)
2019/11 - 2019/12	Committee Member, Program Committee, 27th IEEE International Conference on Software Analysis, Evolution and Reengineering (SANER'20)
2019/10 - 2019/11	Committee Member, Software Engineering in Practice (SEIP) Program Committee, 42nd IEEE/ACM International Conference on Software Engineering (ICSE'20)

2018/11 - 2019/10	Committee Member, Reviewers, Elsevier Information and Software Technology (IST) Reviewed 1 article (with multiple revisions)
2019/8 - 2019/9	Committee Member, Program Committee, 26th Asia-Pacific Software Engineering Conference (APSEC'19)
2018/7 - 2019/9	Committee Member, Reviewers, Wiley Journal of Software: Practice and Experience (JSPE) Reviewed 1 article (with multiple revisions)
2019/7 - 2019/8	Committee Member, Reviewers, Springer Software Quality Journal (SQJ) Reviewed 1 article (with multiple revisions)
2019/6 - 2019/7	Committee Member, Program Committee, 19th IEEE International Working Conference on Source Code Analysis and Manipulation (SCAM'19)
2019/5 - 2019/5	Committee Member, Reviewers, Elsevier Applied Computing and Informatics (ACI) Reviewed 1 article
2019/1 - 2019/5	Committee Member, Best Thesis Award, CNRS GDR GPL Programming and Software Engineering Research Cluster of CNRS, France ( <i>Groupement de Recherche Génie de la Programmation et du Logiciel</i> in French)
2019/2 - 2019/4	Committee Member, Program Committee, 43rd IEEE Computer Software and Applications Conference (COMPSAC'19)
2019/3 - 2019/3	Committee Member, Tools Program Committee, 27th IEEE/ACM International Conference on Program Comprehension (ICPC'19)
2018/6 - 2019/3	Committee Member, Reviewers, Springer Automated Software Engineering (AUSE) Reviewed 1 article (with multiple revisions)
2018/2 - 2019/3	Committee Member, Reviewers, Springer Empirical Software Engineering (EMSE) Reviewed 5 articles (with multiple revisions)
2019/1 - 2019/2	Committee Member, Program Committee, 6th International Workshop on Eye Movements in Programming (EMIP'19)
2019/1 - 2019/2	Committee Member, Program Committee, International Symposium on Software Engineering for Cloud, Edge and IoT Systems (SECEI'20)
2018/12 - 2019/2	Committee Member, Reviewers, Hindawi Scientific Programming (SP) Reviewed 1 article
2018/11 - 2019/2	Committee Member, Reviewers, IEEE Transactions on Software Engineering (TSE) Reviewed 1 article
2018/6 - 2019/2	Committee Member, Reviewers, Wiley Journal of Software: Evolution and Process (JSEP) Reviewed 1 article
2018/12 - 2018/12	Committee Member, Demonstration Program Committee, 26th IEEE International Conference on Software Analysis, Evolution, and Reengineering (SANER'19)
2018/10 - 2018/11	Committee Member, Reviewers, Elsevier Science of Computer Programming (SCP) Reviewed 1 article
2018/10 - 2018/10	Committee Member, Reviewers, ACM Communications Reviewed 1 article
2018/9 - 2018/10	Committee Member, Shepherd, 12th Latin American Conference on Pattern Languages of Programs (SugarLoafPLoP'18)
2017/2 - 2018/10	Committee Member, Reviewers, IEEE Transactions on Software Engineering (TSE) Reviewed 4 articles (with multiple revisions)

2018/7 - 2018/9	Committee Member, Reviewers, Hindawi Scientific Programming (SP) Reviewed 1 article
2017/12 - 2018/9	Committee Member, Reviewers, ACM Transactions on Software Engineering and Methodology (TOSEM) Reviewed 1 article (with multiple revisions)
2018/7 - 2018/8	Committee Member, Program Committee, 25th Asia-Pacific Software Engineering Conference (APSEC'18)
2018/6 - 2018/7	Committee Member, Program Committee, 18th IEEE International Working Conference on Source Code Analysis and Manipulation (SCAM'18)
2018/6 - 2018/6	Committee Member, Doctoral Symposium Program Committee, 33rd IEEE/ACM International Conference on Automated Software Engineering (ASE'18)
2018/4 - 2018/6	Committee Member, Program Committee, 33rd IEEE/ACM International Conference on Automated Software Engineering (ASE'18)
2018/2 - 2018/5	Committee Member, Reviewers, Elsevier Journal of Systems and Software (JSS) Reviewed 1 article (with multiple revisions)
2018/1 - 2018/5	Committee Member, Best Thesis Award, CNRS GDR GPL Programming and Software Engineering Research Cluster of CNRS, France ( <i>Groupement de Recherche Génie de la Programmation et du Logiciel</i> in French)
2017/3 - 2018/5	Committee Member, Reviewers, Springer Empirical Software Engineering (EMSE) Reviewed 4 articles (with multiple revisions)
2017/3 - 2018/4	Committee Member, Reviewers, Elsevier Journal of Systems and Software (JSS) Reviewed 2 articles (with multiple revisions)
2018/2 - 2018/2	Committee Member, Program Committee, 26th IEEE/ACM International Conference on Program Comprehension (ICPC'18)
2018/1 - 2018/2	Committee Member, Demonstration Program Committee, 25th IEEE International Conference on Software Analysis, Evolution, and Reengineering (SANER'18)
2017/5 - 2017/11	Committee Member, Reviewers, Elsevier Information and Software Technology (IST) Reviewed 3 articles (with multiple revisions)
2017/3 - 2017/11	Committee Member, Reviewers, Elsevier Science of Computer Programming (SCP) Reviewed 1 article
2017/7 - 2017/8	Committee Member, Program Committee, 24th Asia-Pacific Software Engineering Conference (APSEC'17)
2017/6 - 2017/8	Committee Member, Reviewers, Springer Software Quality Journal (SQJ) Reviewed 1 article (with multiple revisions)
2017/6 - 2017/7	Committee Member, New Ideas and Emerging Results (NIER) Program Committee, 33rd IEEE International Conference on Software Maintenance and Evolution (ICSME'17)
2017/1 - 2017/3	Committee Member, Program Committee, 25th IEEE International Conference on Program Comprehension (ICPC'17)
2016/9 - 2017/1	Committee Member, New Ideas and Emerging Results (NIER) Program Committee, 39th IEEE/ACM International Conference on Software Engineering (ICSE'17)
2016/11 - 2016/12	Committee Member, Program Committee, 4rd International Workshop on Patterns Promotion and Anti-patterns Prevention (PPAP'17)

# **Other Memberships**

2010/5 - 2024/8 Senior Member, Institute of Electrical and Electronics Engineers (IEEE)

2007/3 - 2024/4 Member, Ordre des ingénieurs du Québec

2004/1 - 2010/4 Member, Institute of Electrical and Electronics Engineers

## **Presentations**

1. (2022). Al System Design Patterns: System Architecture, Component Design, and Model Operation.

Huawei Strategy and Technology Workshop, Montréal, Canada

Main Audience: Knowledge User Invited?: Yes, Keynote?: No

## **Publications**

### **Journal Articles**

 Marcela G. Dos Santos, Fabio Petrillo, Sylvain Hallé, and Yann-Gaël Guéhéneuc. (2024). AAT4IRS: Automated Acceptance Testing for Industrial Robotic Systems. Frontiers in Robotics and Al.

In Press, Frontiers, Refereed?: Yes

Editors: Kostas J. Kyriakopoulos

 Peter Yefi, Ramanunni Parakkal Menon, Ursula Eicker, and Yann-Gaël Guéhéneuc. (2024). MetamEnTh: An Object-Oriented Metamodel for IoT Systems in Buildings. IEEE Internet of Things Journal (IoTJ).

11(15): 25818-25838.

Published, IEEE CS Press,

Refereed?: Yes

Description of Contribution Role: Nei Kato

3. Layan Etaiwi, Pascal Sager, Yann-Gaël Guéhéneuc, and Sylvie Hamel. (2024). **Consensus Task**Interaction Trace Recommender to Guide Developers' Software Navigation. Springer Empirical Software Engineering (EMSE). 29(147)

Published, Springer,

Refereed?: Yes

Editors: Robert Feldt and Thomas Zimmermann

4. Jean Baptiste Minani, Fatima Sabir, Naouel Moha, and Yann-Gaël Guéhéneuc. (2024). A Systematic Review of IoT Systems Testing: Objectives, Approaches, Tools, and Challenges. IEEE Transactions on Software Engineering (TSE).

Published,

Refereed?: Yes

Editors: Sebastian Uchitel

5. Gabriel Ullmann and Cristiano Politowski and Fabio Petrillo and Nicolas Anquetil and Yann-Gaël Guéhéneuc. (2024). **SyDRA: An Approach to Understand Game Engine Architecture**. Elsevier Entertainment Computing (EC). 52

Published, Elsevier,

Refereed?: Yes

Editors: Ryohei Nakatsu and Matthias Rauterberg

6. Nour Khezemi, Jean Baptiste Minani, Fatima Sabir, Naouel Moha, Yann-Gaël Guéhéneuc, and Ghizlane El Boussaidi. (2024). A Systematic Literature Review of IoT System Architectural Styles and their Quality Requirements. IEEE Internet of Things Journal (IoTJ).

In Press, IEEE CS Press,

Refereed?: Yes

7. Hafedh Mili, Imen Benzarti, Amel El Kharraz, Ghizlane El Boussaidi, Yann-Gaël Guéhéneuc, and Petko Valtchev. (2023). **Discovering Reusable Functional Features in Legacy Object-oriented Systems**. IEEE Transactions on Software Engineering (TSE). 49(7) Published.

Refereed?: Yes

8. Jean Baptiste Minani\*, Fatima Sabir, Naouel Moha, and Yann-Gaël Guéhéneuc. (2023). A Multi-Method Study of Internet of Things Systems Testing in Industry. IEEE Internet of Things Journal (IoTJ). Published.

Refereed?: Yes

William Flageol\*, Eloi Menaud\*, Yann-Gaël Guéhéneuc, Mourad Badri, and Stefan Monnier. (2023).
 A Mapping Study of Language Features Improving Object-oriented Design Patterns. Elsevier Information and Software Technology (IST).

Published,

Refereed?: Yes

 Rafik Tighilt\*, Manel Abdellatif, Imen Trabelsi\*, Loïc Madern, Naouel Moha, and Yann-Gaël Guéhéneuc. (2023). On the Maintenance Support for Microservice-based Systems through the Specification and the Detection of Microservice Antipatterns. Elsevier Journal of Systems and Software (JSS). 204 Published.

Refereed?: Yes

 Nicolas Anquetil, Julien Delplanque, Stéphane Ducasse, Oleksandr Zaitsev, Christopher P. Fuhrman, and Yann-Gaël Guéhéneuc. (2022). What Do Developers Consider Magic Literals? A Smalltalk Perspective. Elsevier Information and Software Technology (IST). 146 Published.

Refereed?: Yes

12. Hironori Washizaki, Foutse Khomh, Yann-Gaël Guéhéneuc, Hironori Takeuchi, Naotake Natori, Takuo Doi, and Satoshi Okuda. (2022). **Software-Engineering Design Patterns for Machine Learning Applications**. IEEE Computer. 55(1): 30-39.

Published, IEEE Computer Science Press,

Refereed?: Yes

13. Imen Trabelsi\*, Manel Abdellatif, Abdalgader Abubaker, Naouel Moha, Sébastien Mosser, Samira Ebrahimi-Kahou, and Yann-Gaël Guéhéneuc. (2022). From Legacy to Microservices: A Type-based Approach for Microservices Identification using Machine Learning and Semantic Analysis. Wiley Journal of Software: Evolution and Process (JSEP).

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Refereed?: Yes

14. Gias Uddin, Yann-Gaël Guéhénuc, Foutse Khomh, and Chanchal Roy. (2021). An Empirical Study of an Ensemble of Stand-Alone Sentiment Detection Tools for Software Engineering Document. IEEE Transactions on Software Engineering and Methodology (TOSEM). 31(3): 1-38. Published. ACM Press.

Refereed?: Yes

15. Zeinab Kermansaravi\*, Md Saidur Rahman\*, Foutse Khomh, Fehmi Jaafar, and Yann-Gaël Guéhéneuc. (2021). Investigating Design Patterns and Design Anti-pattern Mutations and their Change- and Fault-proneness. Springer Empirical Software Engineering (EMSE). 26(1) Published, Springer,

16. Cristiano Politowski\*, Fabio Petrillo, Gabriel C. Ullmann\*, Yann-Gaël Guéhéneuc. (2021). **Game Industry Problems: An Extensive Analysis of the Gray Literature**. Elsevier Information and Software Technology (IST). 134

Published, Elsevier,

Refereed?: Yes

 Fatima Sabir\*, Yann-Gaël Guéhéneuc, Francis Palma, Naouel Moha, Ghulam Rasool, and Hassan Akhtar. (2021). A Mixed-method Approach to Recommend Corrections and Correct REST Antipatterns. IEEE Transactions on Software Engineering (TSE). 48(11): 4319-4338. Published, IEEE CS Press,

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18. Manel Abdellatif\*, Rafik Tighilt\*, Abdelkarim Belkhir, Naouel Moha, Yann-Gaël Guéhéneuc, and Éric Beaudry. (2021). A Multi-dimensional Study on the State of the Practice of REST APIs Usage in Android Apps. Springer Automated Software Engineering (AUSE). 27: 187-228. Published, Springer,

Refereed?: Yes

19. Cristiano Politowski\*, Fabio Petrillo, João Eduardo Montandon, Marco Tulio Valente, and Yann-Gaël Guéhéneuc. (2021). **Are Game Engines Software Frameworks? A Three-perspective Study**. Elsevier Journal of Software and Systems (JSS). 171

Published, Elsevier,

Refereed?: Yes

20. Manel Abdellatif\*, Anas Shatnawi\*, Hafedh Mili, Naouel Moha, Ghizlane El Boussaidi, Geoffrey Hecht, Jean Privat, and Yann-Gaël Guéhéneuc. (2021). **A Taxonomy of Service Identification Approaches for Legacy Software Systems Modernization**. Elsevier Journal of Systems and Software (JSS). 173 Published, Elsevier,

Refereed?: Yes

21. Maxime Lamothe, Yann-Gaël Guéhéneuc, and Weiyi Shang. (2021). A Systematic Review of API Evolution Literature. ACM Computing Surveys (CSUR). 54(8): 1-26.

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Refereed?: Yes

22. João Eduardo Montandon, Cristiano Politowski\*, Luciana Lourdes Silva, Marco Tulio Valente, Fabio Petrillo, and Yann-Gaël Guéhéneuc. (2021). What Skills do IT Companies look for in New Developers? A Study with Stack Overflow Jobs. Elsevier Information and Software Technology (IST). 129: Short paper.

Published, Elsevier,

Refereed?: Yes

23. Gias Uddin, Fatima Sabir\*, Yann-Gaël Guéhéneuc, Omar Alam, and Foutse Khomh. (2021). **An Empirical Study of IoT Topics in IoT Developer Discussions on Stack Overflow**. Springer Empirical Software Engineering (EMSE). 26(6)

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24. Cristiano Politowski\*, Foutse Khomh, Simone Romano, Giuseppe Scanniello, Fabio Petrillo, Yann-Gaël Guéhéneuc, and Abdou Maiga\*. (2020). A Large Scale Empirical Study of the Impact of Spaghetti Code and Blob Anti-patterns on Program Comprehension. Elsevier Journal of Systems and Software (JSS). 122

Published, Elsevier,

25. Guilherme Lacerda, Fabio Petrillo, Marcelo Pimenta, and Yann-Gaël Guéhéneuc. (2020). **Code Smells and Refactoring: A Tertiary Systematic Review of Challenges and Observations**. Elsevier Journal of Systems and Software (JSS). 167

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26. Antoine Barbez\*, Foutse Khomh, and Yann-Gaël Guéhéneuc. (2020). **A Machine-learning based Ensemble Method for Anti-patterns Detection**. Elsevier Journal of Systems and Software (JSS). 161 Published, Elsevier,

Refereed?: Yes

Diana El Masri\*, Fabio Petrillo, Yann-Gaël Guéhéneuc, Abdelwahab Hamou-Lhadj, and Anas Bouziane.
 (2020). A Systematic Literature Review on Automated Log Abstraction Techniques. Elsevier
 Information and Software Technology (IST). 122

Published, Elsevier,

Refereed?: Yes

28. Zohreh Sharafi\*, Bonita Sharif, Yann-Gaël Guéhéneuc, Andrew Begel, Roman Bednarik, and Martha E. Crosby. (2020). A Practical Guide on Conducting Eye Tracking Studies in Software Engineering. Springer Empirical Software Engineering (EMSE). 25: 3128-3174.

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Published, Springer,

Refereed?: Yes

29. Rodrigo Morales\*, Rubén Saborido\*, and Yann-Gaël Guéhéneuc. (2020). **MoMIT: Porting a JavaScript Interpreter on a Quarter Coin**. IEEE Transactions on Software Engineering (TSE). 47(12): 2771-2785. Published, IEEE CS Press,

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30. Mohab Aly, Foutse Khomh, Yann-Gaël Guéhéneuc, Hironori Washizaki, and Soumaya Yacout. (2019). **Is Fragmentation a Threat to the Success of the Internet of Things?**. IEEE Internet of Things Journal (IoTJ). 6: 472-487.

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31. Fábio Petrillo\*, Yann-Gaël Guéhéneuc, Marcelo Pimenta, Carla Maria Dal Sasso Freitas, and Foutse Khomh. (2019). **Swarm Debugging: The Collective Intelligence on Interactive Debugging**. Elsevier Journal of Systems and Software (JSS). 153: 152-174.

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32. Mahdis Zolfagharinia\*, Bram Adams, and Yann-Gaël Guéhéneuc. (2019). **A Study of Build Inflation in 30 Million CPAN Builds on 13 Perl Versions and 10 Operating Systems**. Springer Empirical Software Engineering (EMSE). 24: 3933-3971.

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33. Fatima Sabir\*, Francis Palma, Ghulam Rasool, Yann-Gaël Guéhéneuc, and Naouel Moha. (2019). A Systematic Literature Review on the Detection of Smells and their Evolution in Object-Oriented and Service-Oriented Systems. Wiley Journal of Software: Practice and Experience (JSPE). 49(1): 3-39. Published,

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34. Francis Palma\*, Naouel Moha, and Yann-Gaël Guéhéneuc. (2019). **UniDoSA: The Unified Specification and Detection of Service Antipatterns**. IEEE Transactions on Software Engineering (TSE). 45(10): 1024-1053.

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Published, IEEE CS Press,

35. Hayet Brabra, Achraf Mtibaa, Fábio Petrillo\*, Philippe Merle, Layth Sliman, Naouel Moha, Walid Gaaloul, Yann-Gaël Guéhéneuc, Boualem Benatallah, and Faïez Gargouri. (2019). **On Semantic Detection of Cloud API (Anti)Patterns**. Elsevier Information and Software Technology (IST). 107: 65-82. Published, Elsevier,

Refereed?: Yes

36. Hironori Washizaki, Foutse Khomh, and Yann-Gaël Guéhéneuc. (2018). **ProMeTA: A Taxonomy for Program Metamodels in Program Reverse Engineering**. Springer Empirical Software Engineering (EMSE). 23(4): 2323-2358.

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37. Cristiano Politowski\*, Lisandra M. Fontoura, Fabio Petrillo, and Yann-Gaël Guéhéneuc. (2018). Learning from the Past: a Process Recommendation System for Video Game Projects using Postmortems Experiences. Elsevier Information and Software Technology (IST). 100: 103-118. Published.

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38. Rubén Saborido\*, Rodrigo Morales\*, Foutse Khomh, Yann-Gaël Guéhéneuc, and Giuliano Antoniol. (2018). **Getting the Most from Map Data Structures in Android**. Springer Empirical Software Engineering (EMSE). 23(5): 2829-2864.

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39. Jane Huffman Hayes, Alexander Dekhtyar, Jody Larsen, and Yann-Gaël Guéhéneuc. (2018). **Effective Use of Analysts' Effort in Automated Tracing**. Springer Requirements Engineering (REEN). 23(1): 119-143.

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40. Zéphyrin Soh\*, Foutse Khomh, Yann-Gaël Guéhéneuc, Giuliano Antoniol. (2018). **Noise in Mylyn Interaction Traces and Its Impact on Developers and Recommendation Systems**. Springer Empirical Software Engineering (EMSE). 23: 645-692.

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41. Le An, Foutse Khomh, and Yann-Gaël Guéhéneuc. (2018). **An Empirical Study of Crash-inducing Commits in Mozilla Firefox**. Springer Software Quality Journal (SQJ). 26: 553-584.

Co-Author

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42. Aminata Sabané\*, Yann-Gaël Guéhéneuc, Venera Arnaoudova\*, and Giuliano Antoniol. (2017). **Fragile Base-class Problem, Problem?**. Springer Empirical Software Engineering (EMSE). 22(5): 2612–2657. Co-Author

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43. Latifa Guerrouj\*, Zeinab Kermansaravi\*, Venera Arnaoudova\*, Benjamin C. M. Fung, Foutse Khomh, Giuliano Antoniol, and Yann-Gaël Guéhéneuc. (2017). **Investigating the Relation between Lexical Smells and Change- and Fault-proneness: An Empirical Study**. Springer Software Quality Journal (SQJ). 25(3): 641–670.

Co-Author

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44. Francis Palma\*, Javier Gonzalez-Huerta, Mohamed Founi, Naouel Moha, Guy Tremblay, and Yann-Gaël Guéhéneuc. (2017). **Semantic Analysis of RESTful APIs for the Detection of Linguistic Patterns and Antipatterns**. World Scientific International Journal of Cooperative Information Systems (IJCIS). 26(2): 1-37.

Co-Author

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Refereed?: Yes

45. Fehmi Jaafar\*, Angela Lozano, Yann-Gaël Guéhéneuc, and Kim Mens. (2017). **Analyzing Software Evolution and Quality by Extracting Asynchrony Change Patterns**. Elsevier Journal of Systems and Software (JSS). 131: 311–322.

Co-Author

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Refereed?: Yes

46. Wenbin Li, Jane Huffman Hayes, Giulio Antoniol, Yann-Gaël Guéhéneuc, Bram Adams. (2016). Error Leakage and Wasted Time: Sensitivity and Effort Analysis of a Requirements Consistency Checking Process. Wiley Journal of Software: Evolution and Process. 28(12): 1061–1080.

Co-Author

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Refereed?: Yes

47. Fehmi Jaafar, Yann-Gaël Guéhéneuc, Sylvie Hamel, Foutse Khomh, and Mohammad Zulkernine. (2016). **Evaluating the Impact of Design Pattern and Anti-pattern Dependencies on Changes and Faults**. Springer Journal of Empirical Software Engineering. 21(3): 896–931.

Co-Author

Published, Springer,

Refereed?: Yes, Synthesis?: No

48. Yann-Gaël Guéhéneuc, Gihwon Kwon, Pornsiri Muenchaisri. (2016). **Guest Editorial for the Special Section with the Extensions to the Best Papers from APSEC'13 and APSEC'14**. Elsevier Information and Software Technology. 74: 181–182.

Co-Editor

Published,

Refereed?: No

49. Wei Wu, Foutse Khomh, Bram Adams, Yann-Gaël Guéhéneuc, Giuliano Antoniol. (2016). **An Exploratory Study of API Changes and Usages based on Apache and Eclipse Ecosystems**. Springer Journal of Empirical Software Engineering. 21(6): 2366–2412.

Co-Author

Published,

Refereed?: Yes

50. José Côté, Sylvie Cossette, Pilar Ramirez-Garcia, Alexandra De Pokomandy, Catherine Worthington, Marie-Pierre Gagnon, Patricia Auger, François Boudreau, Joyal Miranda, Yann-Gaël Guéhéneuc, and Cécile Tremblay. (2015). Evaluation of a Web-based Tailored Intervention (TAVIE en santé) to Support People Living with HIV in the Adoption of Health Promoting Behaviours: an Online Randomized Controlled Trial Protocol. BMC Public Health. 15: N/A.

Co-Author

Published.

51. Nasir Ali, Zohreh Sharafi, Yann-Gaël Guéhéneuc, and Giuliano Antoniol. (2015). **An Empirical Study on the Importance of Source Code Entities for Requirements Traceability**. Springer Journal of Empirical Software Engineering. 20(2): 442–478.

Co-Author

Published, Springer,

Refereed?: Yes, Synthesis?: No

Number of Contributors: 4

52. Yann-Gaël Guéhéneuc and Tom Mens. (2015). **Guest Introduction to the Special Issue on Software Maintenance and Evolution Research**. Springer Journal of Empirical Software Engineering. N/A: N/A.

Co-Editor Published,

Refereed?: No

53. José Côté, Gaston Godin, Pilar Ramirez-Garcia, Geneviève Rouleau, Anne Bourbonnais, Yann-Gaël Guéhéneuc, Cécile Tremblay, and Joanne Otis. (2015). Virtual Intervention to Support Self-Management of Antiretroviral Therapy Among People Living With HIV. JMIR Publications Journal of Medical Internet Research. 17(1): e6.

Co-Author

Published, JMIR.

Refereed?: Yes, Synthesis?: No

Number of Contributors: 8

54. Abdelilah Sakti, Gilles Pesant, and Yann-Gaël Guéhéneuc. (2015). **Instance Generator and Problem Representation to Improve Object Oriented Code Coverage**. IEEE Transaction on Software Engineering. 41(3): 294–313.

Co-Author Published, Refereed?: Yes

55. Wei Wu, Adrien Serveaux, Yann-Gaël Guéhéneuc, Giuliano Antoniol. (2015). **The Impact of Imperfect Change Rules on Framework API Evolution Identification: an Empirical Study**. Springer Journal of Empirical Software Engineering. 20(4): 1126–1158.

Co-Author Published, Refereed?: Yes

 Zohreh Sharafi, Zéphyrin Soh, Yann-Gaël Guéhéneuc. (2015). A Systematic Literature Review on the Usage of Eye-tracking in Software Engineering. Elsevier Information and Software Technology. 67: 79– 107.

Co-Author Published,

Refereed?: Yes

57. Abdelilah Sakti, Gilles Pesant, and Yann-Gaël Guéhéneuc. (2014). **Instance Generator and Problem Representation to Improve Object Oriented Code Coverage**. IEEE Transactions on Software Engineering. 40(99): 1–22.

Co-Author

Published, IEEE CS Press, Refereed?: Yes, Synthesis?: No

58. Fehmi Jaafar, Yann-Gaël Guéhéneuc, Guiliano Antoniol, and Sylvie Hamel. (2014). **Detecting Asynchrony and Dephase Change Patterns by Mining Software Repositories**. Wiley Journal of Software Maintenance and Evolution: Research and Practice. 26(1): 77–106.

Co-Author

Published, Wiley,

Refereed?: Yes, Synthesis?: No

Number of Contributors: 4

59. Venera Arnaoudova, Laleh Eshkevari, Massimiliano Di Penta, Rocco Oliveto, Giuliano Antoniol, and Yann-Gaël Guéhéneuc. (2014). **REPENT: Analyzing the Nature of Identifier Renamings**. IEEE Transactions on Software Engineering. 40(5): 502–532.

Last Author

Published, IEEE CS Press, Refereed?: Yes, Synthesis?: No

Number of Contributors: 6

60. Soumaya Medini, Venera Arnaoudova, Massimiliano Di Penta, Giulian Antoniol, Yann-Gaël Guéhéneuc, and Paolo Tonella. (2014). **SCAN: An Approach to Label and Relate Execution Trace Segments**. Wiley Journal of Software: Evolution and Process. 26(11): 962–995.

Co-Author

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Number of Contributors: 6

61. Francis Palma, Mathieu Nayrolles, Naouel Moha, Yann-Gaël Guéhéneuc, Benoit Baudry, and Jean-Marc Jézéquel. (2014). **SOA Antipatterns: An Approach for their Specification and Detection**. World Scientific International Journal of Cooperative Information Systems. 22(4): N/A.

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Number of Contributors: 6

<u>62.</u> Fehmi Jaafar, Yann-Gaël Guéhéneuc, Sylvie Hamel, and Foutse Khomh. (2013). **Analysing Anti-patterns Static Relationships with Design Patterns**. Electronic Communications of the EASST. 59: 930.

Co-Author

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Number of Contributors: 4

63. Ségla Kpodjedo, Filippo Ricca, Philippe Galinier, Giuliano Antoniol, and Yann-Gaël Guéhéneuc. (2013). Studying Software Evolution of Large Object-oriented Software Systems using an ETGM Algorithm. Wiley Journal of Software Maintenance and Evolution: Research and Practice. 25(2): 139–163.

Co-Author

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64. Joyal Miranda, José Côté, Gaston Godin, Martin Blais, Joanne Otis, Yann-Gaël Guéhéneuc, Ghayas Fadel, Luisa Barton, and Shawn Fowler. (2013). An Internet-Based Intervention Condom-Him to Increase Condom Use Among Human Immunodeficiency Virus-Positive Men Who Have Sex With Men: Protocol for a Randomized Controlled Trial. JMIR Publications JMIR Research Protocols. 2(2): e39.

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Published, JMIR,

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65. Latifa Guerrouj, Massimiliano Di Penta, Yann-Gaël Guéhéneuc, and Giuliano Antoniol. (2013). An Experimental Investigation on the Effects of Context on Source Code Identifiers Splitting and Expansion. Springer Journal of Empirical Software Engineering. 19(6): 1706–1753.

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Published, Springer,

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66. Ségla Kpodjedo, Filippo Ricca, Philippe Galinier, Giuliano Antoniol, and Yann-Gaël Guéhéneuc. (2013). MADMatch: Many-to-many Approximate Diagram Matching for Design Comparison. IEEE Transactions on Software Engineering. 39(8): 1090–1111.

Co-Author

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Number of Contributors: 5

67. Nasir Ali, Yann-Gaël Guéhéneuc, and Giuliano Antoniol. (2013). **Trustrace: Mining Software**Repositories to Improve the Accuracy of Requirement Traceability Links. IEEE Transactions on Software Engineering. 39(5): 725–741.

Co-Author

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Number of Contributors: 3

68. Benoît de Smet, Lorent Lempereur, Zohreh Sharafi, Yann-Gaël Guéhéneuc, Giuliano Antoniol, and Naji Habra. (2012). **Taupe: Visualising and Analysing Eye-tracking Data**. Elsevier Science of Computer Programming. 79: 260–278.

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69. José Coté, Gaston Godin, Yann-Gaël Guéhéneuc, Geneviève Rouleau, Pilar Ramirez-Garcia, Joanne Otis, Cécile Tremblay, and Ghayas Fadel. (2012). Evaluation of a Real-time Virtual Intervention to Empower Persons Living with HIV for Therapy Self-management: Study Protocol for an Online Randomized Controlled Trial. BioMed Central Trials. 13(1): 187.

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Number of Contributors: 8

70. José Côté, Geneviève Rouleau, Gaston Godin, Pilar Ramirez-Garcia, Yann-Gaël Guéhéneuc, Georgette Nahas, Cécile Tremblay, Joanne Otis, and Annick Hernandez. (2012). Acceptability and Feasibility Study of a Virtual Intervention to Help Persons Living with HIV Manage their Daily Therapies. SAGE Journal of Telemedecine and Telecare. 18(7): 409–421.

Co-Author

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Number of Contributors: 9

71. Foutse Khomh, Massimiliano Di Penta, Yann-Gaël Guéhéneuc, and Giuliano Antoniol. (2012). **An Exploratory Study of the Impact of Antipatterns on Class Change- and Fault-Proneness**. Springer Journal of Empirical Software Engineering. 17(3): 243–275.

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72. Latifa Guerrouj, Massimiliano Di Penta, Giuliano Antoniol, and Yann-Gaël Guéhéneuc. (2011). TIDIER: An Identifier Splitting Approach using Speech Recognition Techniques. Wiley Journal of software: Evolution and Process. 25(6): 575–599.

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Refereed?: Yes, Synthesis?: No

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73. Ségla Kpodjedo, Filippo Ricca, Philippe Galinier, Yann-Gaël Guéhéneuc, and Giuliano Antoniol. (2011).
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74. Foutse Khomh, Stéphane Vaucher, Yann-Gaël Guéhéneuc, and Houari Sahraoui. (2011). A GQM-based Method and a Bayesian Approach for the Detection of Code and Design Smells. Elsevier Journal of Software and Systems. 84(4): 559–572.

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75. José Côté, Pilar Ramirez-Garcia, Geneviève Rouleau, Diane Saulnier, Yann-Gaël Guéhéneuc, Annick Hernandez, and Gaston Godin. (2011). A Nursing Virtual Intervention: Real-Time Support for Managing Antiretroviral Therapy. Wolters Kluwer Health Computers, Informatics, Nursing. 29(1): 43–51. Co-Author

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Refereed?: Yes, Synthesis?: No

Number of Contributors: 7

76. Naouel Moha, Yann-Gaël Guéhéneuc, Laurence Duchien, and Anne-Françoise Le Meur. (2010). DECOR: A Method for the Specification and Detection of Code and Design Smells. IEEE Transactions on Software Engineering. 36(1): 20–36.

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Refereed?: Yes, Open Access?: No, Synthesis?: No

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