Curriculum Vitae

Gabriel Vigliensoni

1455 De Maisonneuve Blvd. W. EV6.755.
Montréal, QC. H3G 1M8. CANADA
Phone: +1 514 848 2424
gabriel.vigliensoni@concordia.ca

Profile

My research combines creative practice and technology, focusing on sound and music-making, human-computer interaction, music information retrieval, and machine learning. I develop gestural interfaces and tools that change how sound and music are composed, performed, and experienced. I also examine the ethical implications of using data-driven technologies in creative practices, analyzing biases and exclusions these technologies may cause. My goal is to promote an approach to creative practice that ensures technological advancements in sound and music are accessible to all.

Education

2017
DOCTOR OF PHILOSOPHY, MUSIC TECHNOLOGY
McGill University
Advisor: Ichiro Fujinaga
Recipient of Bicentennial Doctoral Grant, CONICYT, Gobierno de Chile; Scholarship for Academic Excellence, SCD; and Graduate Excellence Fellowship, McGill University.

2011
MASTER OF ARTS, MUSIC TECHNOLOGY
McGill University
Advisor: Marcelo M. Wanderley
Recipient of Bicentennial Masters Grant, CONICYT, Gobierno de Chile

2004
BACHELOR OF ARTS, SOUND SCIENCES
Universidad de Chile

Professional experience

2023–PRESENT
ASSISTANT PROFESSOR IN CREATIVE ARTIFICIAL INTELLIGENCE. DEPARTMENT OF DESIGN AND COMPUTATION ARTS. FACULTY OF FINE ARTS. CONCORDIA UNIVERSITY

I joined Concordia University to strengthen the Computation Arts program in the field of creative artificial intelligence. In particular, in my research, teaching, and creative practice I explore the use of machine learning techniques to create novel and unique media work, especially in sound- and music-making. Current courses: CART398 Creative Artificial Intelligence, CART498 Generative Artificial Intelligence, CART 210 New Media Theory, and CART346 —Digital Sound I.

2022–2023
VISITING RESEARCHER AND POSTDOCTORAL RESEARCH FELLOW. CREATIVE COMPUTING INSTITUTE. UNIVERSITY OF THE ARTS LONDON

Supported by the Fonds de recherche du Québec — Société et culture (FRQSC), I carried out the knowledge mobilization plan for the research-creation project "The human in the machine: Musical composition assisted by deep neural networks." The plan aimed at democratizing access for digital artists and musicians to state-of-the-art generative techniques by mobilizing advanced knowledge on artificial intelligence technologies and their application in sound and music-making contexts. The project involved the communities linked to five centres for the research of digital arts; one international festival on digital creativity and electronic music; and one large international museum.

2020–2022
POSTDOCTORAL RESEARCH FELLOW. DEPARTMENT OF COMPUTING, GOLDSMITHS UNIVERSITY OF LONDON

I was awarded multi-year funding by FRQSC to carry out the research-creation project titled "The human in the machine: Musical composition assisted by deep neural networks." In this project, I am assessing and experimenting with the creative affordances of deep neural networks as collaborative tools in the context of music composition and performance. Advisor: Rebecca Fiebrink.

2019–2020   **RESEARCH ASSOCIATE.** DEPARTMENT OF MUSIC RESEARCH, MCGILL UNIVERSITY

Led team of eight software developers per year in the design and implementation of web-based applications for optical music recognition. Helped to write and proofread grant applications to get funding from provincial and federal agencies and to organize the International Society for Music Information Retrieval and the Digital Libraries for Musicology conferences. Served as Music track co-Chair for the former and Proceedings Chair for the latter.

2017–2019   **POSTDOCTORAL RESEARCHER.** DEPARTMENT OF MUSIC RESEARCH, MCGILL UNIVERSITY

Applied deep neural networks for document segmentation and processing of music score images at large-scale. Led a team of students to design, implement, and integrate computational tools and neural networks into optical music recognition workflows. Hired by the Department of Music Research to work in the Single Interface for Music Score Searching and Analysis (SIMSSA) project, a seven-year grant funded by the Social Sciences and Humanities Research Council (SSHRC) of Canada.

2017–2018 | 2021   **SOUND DESIGNER.** APPLIED ACOUSTICS SYSTEMS (AAS)

Tuned a low-order physical model of virtual acoustics and designed a set of presets for end-user use. De signed and carried out a series of experiments to validate the coefficients and position of transducers in the virtual room. Designed a series of sound patches for the default library of the modular synthesizer Multiphonics CV-1 and CV-2.

2012–2019   **LECTURER.** SCHULICH SCHOOL OF MUSIC, MCGILL UNIVERSITY

Lectured several courses in the Department of Music Research at McGill University. Among them, "Fundamentals of New Media," "New Media Production," and "Music and the Internet". Topics included digital audio sampling theory and computer music fundamentals; MIDI sequencing and OSC; sound recording, editing, and mixing; synthesis techniques and audio effects; technologies and resources of the Internet for musicians; Web authoring; online music production and distribution tools; application programming interfaces (APIs) for musical data; music information retrieval fundamentals; and music recommendation.

2013–2015   **RESEARCH ASSISTANT.** DEPARTMENT OF MUSIC PERFORMANCE, McGILL UNIVERSITY

Implemented a real-time score following system that allowed a robotic harpsichord to realize a basso continuo part with cello and violin performers synchronically. This project was part of the SSHRC research grant Centre de Recherche sur l'Interprétation au Clavecin (CRIC).

2010–2017   **RESEARCH ASSISTANT.** DEPARTMENT OF MUSIC RESEARCH, McGILL UNIVERSITY

Designed heuristic approaches for the recognition and encoding of musical pitches in music score images of Gregorian chant. Applied deep neural networks for document segmentation and processing of music score images at large scale. Integrated music editors to examine image analysis techniques for early music prints and manuscripts.

2010–2011   **TEACHING ASSISTANT.** DEPARTMENT OF MUSIC RESEARCH, McGILL UNIVERSITY

Conducted laboratory sessions, graded assignments and final projects, had weekly TA office hours for the course "Fundamentals of New Media.". Topics include digital audio and sampling theory, MIDI and sequencing, audio editing and mixing, elementary sound recording, and score editing software.

2007–2010   **CTO.** ARMABLE ONLINE RADIO, SANTIAGO DE CHILE

Designed and deployed full radio automation systems that guaranteed variability in programming slots according to user-chosen musical descriptors. The radios served several large-scale retail clients and the general audience through our Internet streams.

2004–2009   **PROGRAM DIRECTOR, SOUND ENGINEERING CURRICULUM.** INSTITUTO DUOCUC, SANTIAGO DE CHILE

Revised and updated the curriculum based on industry needs; designed the intended learning outcomes for each module of the curriculum; and supervised the design of learning and assessment activities developed by each lecturer for the courses. Worked with more than 30 faculty members to teach a growing cohort of more than 300 students. Worked with industry partners to place graduate students and achieved an employment rate of 90 percent.

2000–2004	**LECTURER.** ESCUELA DE POSTGRADO, FACULTAD DE ARTES, UNIVERSIDAD DE CHILE, SANTIAGO DE CHILE

Taught the graduate seminar "Plasticidad en la Banda Sonora" for the School of Graduate Studies of the Faculty of Arts at Universidad de Chile. Most students were visual and sound artists that wanted to learn about the creative possibilities of digital audio workstations and sound processing.

2000–2008	**RECORDING AND MIXING ENGINEER.** OJOPARLANTE SOUND RECORDING STUDIOS, SANTIAGO DE CHILE

Designed, set up, and co-ran a recording facility for sound and music production.

FUNDING AND AWARDS

2024–2025   **PI, PETRO-CANADA YOUNG INNOVATOR AWARD (PCYIA)**
PETRO-CANADA

2024–2025   **COLLABORATOR, RESPONSIBLE AI UK INTERNATIONAL PARTNERSHIPS**
UKRI — UK RESEARCH AND INNOVATION

2023–2025   **PI, EXPLORE AND CREATE | RESEARCH-CREATION**
CANADA COUNCIL FOR THE ARTS

2023–2025   **PI, FACULTY RESEARCH DEVELOPMENT PROGRAM**
CONCORDIA UNIVERSITY

2022–2023   **KNOWLEDGE MOBILIZATION GRANT | RESEARCH-CREATION**
FONDS DE RECHERCHE DU QUÉBEC — SOCIÉTÉ ET CULTURE (FRQSC)

2020–2022   **POSTDOCTORAL RESEARCH-CREATION GRANT**
FONDS DE RECHERCHE DU QUÉBEC — SOCIÉTÉ ET CULTURE (FRQSC)

2019   **BURSARY AWARD**
ALLIANCE OF DIGITAL HUMANITIES ORGANIZATIONS

2017   **BEST REVIEWER AWARD**
18th INTERNATIONAL SOCIETY FOR MUSIC INFORMATION RETRIEVAL (ISMIR) CONFERENCE

2016   **BECA EXCELENCIA ACADÉMICA**
SOCIEDAD CHILENA DEL DERECHO DE AUTOR (SCD), CHILE

2011–2015   **BICENTENNIAL DOCTORAL GRANT**
COMISIÓN NACIONAL DE CIENCIA Y TECNOLOGÍA (CONICYT), CHILE

2011–2012   **GRADUATE EXCELLENCE FELLOWSHIP**
SCHULICH SCHOOL OF MUSIC, McGILL UNIVERSITY

2011   **SEYMOUR SCHULICH SCHOLARSHIP**
SCHULICH SCHOOL OF MUSIC, McGILL UNIVERSITY

2009–2010   **McGILL PROVOST'S GRADUATE FELLOWSHIP**
GRADUATE AND POSTDOCTORAL STUDIES OFFICE, McGILL UNIVERSITY

2009–2011   **BICENTENNIAL MASTERS GRANT**
COMISIÓN NACIONAL DE CIENCIA Y TECNOLOGÍA (CONICYT), CHILE

SERVICE AND SUPERVISION

Academic committees
Concordia University SSHRC Doctoral Committee (2023/09–)
Concordia University FoFA Advisory Search Committee for Academic Unit Head (ASCAH) (2024/01–2024/03)
Concordia University DCART Part-time Hiring Committee (PTHC) (2024/01–)

Student advisees
Nedezda Mytnik (MA INDI 2024–). Principal supervisor
Val Nguyen (MA INDI 2024–). Principal supervisor
Mohammed Yehke (MDes 2023–). Co-supervisor
Debora Alanna (MA INDI 2023–). Committee member

Timothy DeReuse (Ph.D. defense committee, Music, McGill University, 2024)
Harley Smart (MDes defense committee, Concordia University, 2023)

Directed studies

Fall 2023: 1 (PhD), 2 (UG)
Fall 2024: 1 (PhD), 1 (UG)

Internship supervision

Winter 2024: 2

RESEARCH OUTPUT

Publications

2024

Tecks, A., T. Peschlow, and G. **Vigliensoni**. 2024. Explainability Paths for Sustained Artistic Practice. In *Proceedings of the the Second International Workshop on eXplainable AI for the Arts at the ACM Creativity and Cognition Conference (XAIxArts2024)*.

Bryan-Kinns, N., C. Ford, S. Zheng, H. Kennedy, A. Chamberlain, M. Lewis, D. Hemment, Z. Li, Q. Wu, L. Xiao, G. Xia, J. Rezwana, M. Clemens, and G. **Vigliensoni**. Explainable AI for the Arts 2 (XAIxArts2). In *Proceedings of the ACM Creativity and Cognition Conference (C&C '24)*. doi: https://dl.acm.org/doi/10.1145/3635636.3660763

2023

Vigliensoni, G., and R. Fiebrink. 2023. Steering latent audio models through interactive machine learning. In *Proceedings of the 14th International Conference on Computational Creativity (ICCC2023)*.

Vigliensoni, G., and R. Fiebrink. 2023. Interacting with neural audio synthesis models through interactive machine learning. In *The First International Workshop on eXplainable AI for the Arts at the ACM Creativity and Cognition Conference (XAIxArts2023)*.

Vigliensoni, G., and R. Fiebrink. 2023. Re•col•lec•tions: Sharing sonic memories through interactive machine learning and neural audio synthesis models In *Creative AI track of the 37th Conference on Neural Information Processing Systems (NeurIPS 2023)*.

Shimizu, J., I. Olowe, T. Broad, G. **Vigliensoni**, P. Thattai, and R. Fiebrink. 2023. Interactive machine learning for generative models. In *Proceedings of the Machine Learning for Creativity and Design Workshop, 37th Conference on Neural Information Processing Systems (NeurIPS 2023)*.

Fujinaga, I, and G. **Vigliensoni**. 2023. Optical music recognition workflow for medieval music manuscripts. In *Proceedings of the 5th International Workshop on Reading Music Systems (WoRMS 2023)*.

2022

Vigliensoni, G., P. Perry, and R. Fiebrink. 2021. A small-data mindset for generative AI creative work. In *Proceedings of the Generative AI and HCI - Conference on Human Factors in Computing Systems Workshop (CHI2022)*. doi: https://doi.org/10.5281/zenodo.7086327.

Vigliensoni, G., L. McCallum, E. Maestre, and R. Fiebrink. 2022. R-VAE: Live latent space drum rhythm generation from minimal-size datasets. *Journal of Creative Music Systems 1(1)*. doi: https://doi.org/10.5920/jcms.902.

2021

Vigliensoni, G., E. de Luca, and I. Fujinaga. 2021. Chapter 6: Repertoire: Neume Notation. In *Music Encoding Initiative Guidelines* edited by J. Kepper et al.

2020

Vigliensoni, G., L. McCallum, E. Maestre, and R. Fiebrink. 2020. Generation and visualization of rhythmic latent spaces. In *Proceedings of the 2020 Joint Conference on AI Music Creativity*. doi: https://doi.org/10.5281/zenodo.4285422.

Vigliensoni, G., L. McCallum, and R. Fiebrink. 2020. Creating latent spaces for modern music genre rhythms using minimal training data. In *Proceedings of the International Conference on Computational Creativity (ICCC'20)*. doi: https://doi.org/10.5281/zenodo.7415792.

Vigliensoni, G., E. Maestre, and R. Fiebrink. 2020. Web-based dynamic visualization of rhythmic latent space. In *Proceedings of the Sound, Image and Interaction Design Symposium (SIIDS2020)*. doi: https://doi:10.5281/zenodo.7438305.

Regimbal, J., G. **Vigliensoni**, C. Hutnik, and I. Fujinaga. 2020. IIIF-based lyric and neume editor for square-notation manuscripts. In *Proceedings of the Music Encoding Conference*.

2019

Fujinaga, I., and G. **Vigliensoni**. 2019. The art of teaching computers: The SIMSSA optical music recognition workflow system. In *Proceedings of the 27th European Signal Processing Conference*.

Vigliensoni, G., A. Daigle, E. Liu, J. Calvo-Zaragoza, J. Regimbal, M. A. Nguyen, N. Baxter, Z. McLennan, and I. Fujinaga. 2019. Overcoming the challenges of optical music recognition of Early Music with machine learning. *Digital Humanities Conference 2019*.

Vigliensoni, G., A. Daigle, E. Liu, J. Calvo-Zaragoza, J. Regimbal, M. A. Nguyen, N. Baxter, Z. McLennan, and I. Fujinaga. 2019. From image to encoding: Full optical music recognition of Medieval and Renaissance music. *Music Encoding Conference 2019*.

2018

Vigliensoni, G., J. Calvo-Zaragoza, and I. Fujinaga. 2018. Developing an environment for teaching computers to read music. In *Proceedings of 1st International Workshop on Reading Music Systems*.

Castellanos, F., J. Calvo-Zaragoza, G. **Vigliensoni**, and I. Fujinaga. 2018. Document analysis of music score images with selectional auto-encoders. In *Proceedings of the 19th International Society for Music Information Retrieval Conference*.

Nápoles, N., G. **Vigliensoni**, and I. Fujinaga. 2018. Encoding matters. In *Proceedings of the 5th International Conference on Digital Libraries for Musicology*.

Calvo-Zaragoza, J., F. Castellanos, G. **Vigliensoni**, and I. Fujinaga. 2018. Deep neural networks for document processing of music score images. *Applied Sciences*, 8(5).

Vigliensoni, G., J. Calvo-Zaragoza, and I. Fujinaga. 2018. An environment for machine pedagogy: Learning how to teach computers to read music. In *Proceedings of the Intelligent Music Interfaces for Listening and Creation workshop*.

2017

Vigliensoni, G., D. Romblom, M. P. Verge, and C. Guastavino. 2017. Perceptual evaluation of a virtual acoustic room model. *The Journal of the Acoustical Society of America* 142(4).

Vigliensoni, G. 2017. Evaluating the performance improvement of a music recommendation model by using user-centric features. PhD dissertation. McGill University.

Vigliensoni, G. and I. Fujinaga. 2017. The music listening histories dataset. In *Proceedings of the 18th International Society for Music Information Retrieval Conference*. doi: https://doi.org/10.5281/zenodo.1417499.

Calvo-Zaragoza, J., G. **Vigliensoni**, and I. Fujinaga. 2017. One-step detection of background, staff lines, and symbols in medieval music manuscripts with convolutional neural networks. In *Proceedings of the 18th International Society for Music Information Retrieval Conference*.

Barone, M., K. Dacosta, G. **Vigliensoni**, and M. Woolhouse. 2017. GRAIL: Database linking music metadata across artist, release, and track. In *Proceedings of the 4th International Workshop on Digital Libraries for Musicology*.

Calvo-Zaragoza, J., G. **Vigliensoni**, and I. Fujinaga. 2017. Music document layout analysis through machine learning and human feedback. In *Proceedings of the 12th IAPR International Workshop on Graphics Recognition*.

Saleh, Z., K. Zhang, J. Calvo-Zaragoza, G. **Vigliensoni**, and I. Fujinaga. 2017. Pixel.js: Web-based pixel classification correction platform for ground truth creation. In *Proceedings of the 12th IAPR International Workshop on Graphics Recognition*.

Calvo-Zaragoza, J., G. **Vigliensoni**, and I. Fujinaga. 2017. Pixelwise classification for music document analysis. In *Proceedings of the 2017 Seventh International Conference on Image Processing Theory, Tools, and Applications*.

Calvo-Zaragoza, J., G. **Vigliensoni**, and I. Fujinaga. 2017. Pixel-wise binarization of musical documents with Convolutional Neural Networks. In *Proceedings of the 15th IAPR Conference on Machine Vision Applications*.

Calvo-Zaragoza, J., G. **Vigliensoni**, and I. Fujinaga. 2017. Staff-line detection on greyscale images with pixel classification. In *Proceedings of the 8th Iberian Conference on Pattern Recognition and Image Analysis*.

Barone, M., K. Dacosta, G. **Vigliensoni**, and M. Woolhouse. 2017. GRAIL: A general recorded audio identity linker. Late breaking session *17th International Society for Music Information Retrieval Conference*.

Calvo-Zaragoza, J., G. **Vigliensoni**, and I. Fujinaga. 2017. A unified approach towards automatic recognition of heterogeneous music documents. In *Proceedings of the Music Encoding Conference*.

Calvo-Zaragoza, J., G. **Vigliensoni**, and I. Fujinaga. 2017. A machine learning framework for the categorization of elements in images of musical documents. In *Proceedings of the Third International Conference on Technologies for Music Notation and Representation.*

2016

Vigliensoni, G. and I. Fujinaga. 2016. Automatic music recommendation systems: Do demographic, profiling, and contextual features improve their performance?. In *Proceedings of the 17th International Society for Music Information Retrieval Conference.* doi: https://doi.org/10.5281/zenodo.1417073.

Calvo-Zaragoza, J., G. **Vigliensoni**, and I. Fujinaga. 2016. Staff-line detection on greyscale images with pixel classification. Late breaking session *17th International Society for Music Information Retrieval Conference.*

Calvo-Zaragoza, J., G. **Vigliensoni**, and I. Fujinaga. 2016. Document analysis for music scores via machine learning. *3rd International Digital Libraries for Musicology workshop.*

2015

Fujinaga, I., G. **Vigliensoni**, and H. Knox. 2015. The making of a computerized harpsichord for analysis and training. *International Symposium on Performance Science.*

Barone, M., K. Dacosta, G. **Vigliensoni**, and M. Woolhouse. 2015. GRAIL: A music identity space collection and API. Late breaking session *16th International Society for Music Information Retrieval Conference.*

2014

Vigliensoni, G., and I. Fujinaga. 2014. Time-shift normalization and listener profiling in a large dataset of music listening histories. *Fourth annual seminar on cognitively based music informatics research.*

Vigliensoni, G., and I. Fujinaga. 2014. Identifying time zones in a large dataset of music listening logs. In *Proceedings of the International Workshop on Social Media Retrieval and Analysis.*

2013

Vigliensoni, G., J. A. Burgoyne, and I. Fujinaga. 2013. Musicbrainz for the world: the Chilean experience. In *Proceedings of the International Society for Music Information Retrieval Conference.*

Vigliensoni, G., G. Burlet, and I Fujinaga. 2013. Optical measure recognition in common music notation. In *Proceedings of the International Society for Music Information Retrieval Conference.*

2012

Vigliensoni, G., and M. Wanderley. 2012. A quantitative comparison of position trackers for the development of a touch-less musical interface. In *Proceedings of the New Interfaces for Musical Expression Conference.*

Hankinson, A., J. A. Burgoyne, G. **Vigliensoni**, A. Porter, J. Thompson, W. Liu, R. Chiu, and I. Fujinaga. 2012. Digital document image retrieval using optical music recognition. In *Proceedings of the International Society for Music Information Retrieval Conference.*

Hankinson, A., J. A. Burgoyne, G. **Vigliensoni**, and I. Fujinaga. 2012. Creating a large-scale searchable digital collection from printed music materials. In *Proceedings of Advances in Music Information Research.*

2011

Vigliensoni, G. 2011. Touch-less gestural control of concatenative sound synthesis. Master's thesis, McGill University.

Vigliensoni, G., J. A. Burgoyne, A. Hankinson, and I. Fujinaga. 2011. Automatic pitch detection in printed square notation. In *Proceedings of the International Society for Music Information Retrieval Conference.*

Hankinson, A., G. **Vigliensoni**, J. A. Burgoyne, and I. Fujinaga. 2011. New tools for optical chant recognition. *International Association of Music Libraries Conference.* Dublin, Ireland.

Burgoyne, J. A., R. Chiu, G. **Vigliensoni**, A. Hankinson, J. Cumming, and I. Fujinaga. 2011. Creating a fully-searchable edition of the Liber Usualis. *Medieval and Renaissance Music Conference.* Barcelona, España.

2010

Vigliensoni, G., and M. Wanderley. 2010. Soundcatcher: Explorations in audio-looping and time-freezing using an open-air gestural controller. In *Proceedings of the International Computer Music Conference.*

McKay, C., J. A. Burgoyne, J. Hockman, J. B. L. Smith, G. **Vigliensoni**, and I. Fujinaga. 2010. Evaluating the performance of lyrical features relative to and in combination with audio, symbolic and cultural features. In *Proceedings of the International Society for Music Information Retrieval Conference.*

Vigliensoni, G., C. McKay, and I. Fujinaga. 2010. Using jWebMiner 2.0 to improve music classification performance by combining different types of features mined from the web. In *Proceedings of the International Society for Music Information Retrieval Conference.*

Datasets

The Music Listening Histories Dataset (MLHD). 2017. **Vigliensoni**, G., and I. Fujinaga.

Music Recommendation Dataset (KGRec-music). 2016. Oramas, S., V. C. Ostuni, and G. **Vigliensoni**. Licensed under Creative Commons CC BY-NC 3.0, except 3rd party data.

Sound Recommendation Dataset (KGRec-sound). 2016. Oramas, S., V. C. Ostuni, and G. **Vigliensoni**. Licensed under Creative Commons CC BY-NC 3.0, except 3rd party data.

Invited talks, workshops, presentations, panels, and posters

July, 2024	Presentation	Weaving memory matter: Steerability and embodiment of latent audio models through interactive machine learning. Ethical and Responsible AI Music-Making, *CCI UAL*. London, United Kingdom.
May, 2024	Panel	EduGenAI Panel: Artificial Intelligence in Research. With Golnoosh Farnadi, Nikki Lobc zowski, and Siva Reedy. McGill University, Montréal, Canada.
April, 2024	Presentation	Weaving Memory Matter. *CIRMMT Workshop on GLAM-MIR (Galleries, Libraries, Archives, Museums and Music Information Research)*. McGill University, Montréal, Canada.
March, 2024	Demo Performance	Weaving Memory Matter: Steering latent audio models through interactive machine learning. *IRCAM Forum 30th Anniversary*. Paris, France
February, 2024	Workshop	Music AI workshop. *1st Kilele Summit Symposium on Music Technology & Innovation in East Africa*. With Philippe Pasquier. Nairobi, Kenya
November, 2023	Presentation	Exploring the affordances of AI/ML in creative practice with sound and music. Human, Animal, Machine. Media Studies, University of Toronto.
November, 2023	Presentation	Creative opportunities, affordances, and omissions in sound and music making with AI. Dis cursive Design Research I. Faculty of Fine Arts. Concordia University.
June, 2023	Presentation	Steering latent audio models through interactive machine learning. *14th International Conference on Computational Creativity (ICCC2023)*. Waterloo, ON.
June, 2023	Panel	Interacting with neural audio synthesis models through interactive machine learning. *The First International Workshop on eXplainable AI for the Arts at the ACM Creativity and Cognition Conference 2023 (XAIxArts2023)*. Online.
March, 2023	Presentation	Creative opportunities in sound- and music-making through machine learning. Computer Music Projects. Faculty of Arts and Social Sciences. Carleton University. Ottawa, ON. Online.
October, 2022	Workshop	Materia y memoria: Taller de práctica creativa con música, sonido, e inteligencia artificial. *Museo de la Memoria y los Derechos Humanos*. Santiago, Chile.
October, 2022	Artist talk	Clastic music: Modelamiento rítmico y creación musical con espacios latentes. *Departamento de Sonido*. Facultad de Artes, Universidad de Chile. Santiago, Chile.
September, 2022	Artist talk	Clastic music: Modelamiento rítmico y creación musical con espacios latentes. *Visiones Sonoras 18*. Centro Mexicano para la Música y las Artes Sonoras (CMMAS). Morelia, México.
September, 2022	Seminar	Rhythm modelling and music making with latent spaces. Seminar series *Centre for Interdisciplinary Research in Music Media and Technology*. Montréal, QC.
Agosto, 2022	Panel	Materia y memoria. Práctica artística sonora y las posibilidades creativas de la inteligencia artificial. *Museo de la Memoria y los Derechos Humanos*. Santiago, Chile. Online.
July, 2022	Seminar	Clastic Music: From rhythmic latent spaces to a web-based music release. *Centre for Digital Music Seminar Series*, School of Electronic Engineering and Computer Science, Queen Mary University. London, UK.
July, 2022	Seminar	Music making with generative AI. *Creative Computing Institute*. University of the Arts London. London, UK.

April-May, 2022	Workshop	Interactive machine learning for musicians and artists workshop. *Eastern Bloc.* Montréal, QC.
April, 2022	Workshop	Introduction to machine learning for creative practice workshop. *Milieux Institute.* Montréal, QC.
November, 2021	Presentation	Sharing a pulse: Long-distance participation in the Chilean uprising through a live gestural interface. *Echoes of a Distance: Music, Protest and Community in Confined Times.* McGill Institute for the Public Life of Arts & Ideas Colloquium. Montréal, QC.
November, 2021	Presentation	Modelling of contemporary music genre rhythms with R-VAE. *Research workshop.* Department of Computing, Goldsmiths University of London. London, UK.
November, 2021	Artist talk	R-VAE: Exploration and visualization of rhythmic latent spaces. *1st Center for Sound, Technology and Culture Meeting.* Goldsmiths University of London. London, UK.
October, 2021	Presentation	Clastic music: From rhythmic latent spaces to a web-based music release. *PG-Research meeting.* University of the Arts. London, UK.
July, 2021	Panel	Science and computer music: From natural algorithms to generative pieces. *International Computer Music Conference 2021.* Santiago, Chile. Online.
June, 2021	Artist talk	Música y creatividad digital. *Festival de Innovación Social Capital Circular Aysén Patagonia 2021.* Aysén, Chile. Online.
June, 2021	Artist talk	Lenguaje de máquinas. *5o Conversatorio Mala Memoria.* Santiago, Chile. Online.
October, 2020	Artist talk	Telematic awakening: Participating in the 2019 Chilean uprising through a live gestural interface. *26th International Symposium on Electronic Art.* Montréal, QC. Online.
October, 2020	Presentation	Generation and visualization of rhythmic latent spaces. *2020 Joint Conference on AI Music Creativity.* Stockholm, Sweden. Online.
September, 2020	Workshop	Interactive machine learning using Wekinator. *MUTEK Forum at the 21st International Festival of Digital Creativity and Electronic Music.* Montréal, QC. Online.
September, 2020	Presentation	Creating latent spaces for modern music genre rhythms using minimal training data. *International Conference on Computational Creativity (ICCC'20).* Coimbra, Portugal. Online.
September, 2020	Presentation	Web-based dynamic visualization of rhythmic latent space. *Sound, Image and Interaction Design Symposium (SIIDS2020).* Madeira, Portugal. Online.
September, 2019	Presentation	Cantus Ultimus: OMR for Gothic notation and McGill nanuscripts. *1st Digital Analysis of Chant Transmission workshop.* Montréal, QC.
July, 2019	Presentation	Neon.js: Neume Editor Online demo. *Digital Humanities Musicology Study Group meeting.* Utrecht, Netherlands.
December, 2018	Presentation	Pixel.js: a web-based application for pixel classification and correction. *SIMSSA Workshop XVII. Centre for Interdisciplinary Research in Music Media and Technology.* Montréal, QC.
March, 2018	Presentation	An environment for machine pedagogy: Learning how to teach computers to read music. *Intelligent Music Interfaces for Listening and Creation workshop.* Tokyo, Japan.
March, 2018	Workshop	Insertions into mediatic circuits (with Jeronimo Barbosa). Eastern Bloc, Montréal, QC.
October, 2017	Presentation	Machine learning for everyone. Communications Department, Concordia University, Montréal, QC.
August, 2017	Presentation	Infrastructure for optical music recognition. SIMSSA Workshop XII. Schulich School of Music, McGill University, Montréal, QC.
May, 2017	Poster	Reconnaissance optique de la musique basée sur l'apprentissage machine à grande échelle pour des données de partitions musicales. *85e Congrès de l'Association Francophone Pour Le Savoir.* Montréal, QC.
April, 2017	Presentation	Machine learning for artists. Speculative life cluster. Milieux Institute for Arts, Culture and Technology at Concordia University, Montréal, QC.

March, 2017	Presentation	Discovering music listening patterns in last.fm scrobble data. Music Information, Retrieval, Acquisition, Preservation graduate seminar. Schulich School of Music, McGill University, Montréal, QC.
October, 2016	Presentation	Automatic music recommendation systems: do demographic, profiling, and contextual features improve their performance?. User-centric Music Information Retrieval graduate seminar. School of Information Studies, McGill University, Montréal, QC.
August, 2016	Poster	Automatic music recommendation systems: do demographic, profiling, and contextual features improve their performance? *17th International Society for Music Information Retrieval Conference*. New York City, NY.
February, 2016	Presentation	Automatic music recommendation systems: do demographic, profiling, and contextual features improve their performance? Doctoral colloquium. Schulich School of Music, McGill University, Montréal, QC.
October, 2015	Presentation	Discovering music listening patterns in a large dataset of music listening logs. User-centric Music Information Retrieval graduate seminar. School of Information Studies, McGill University, Montréal, QC.
May, 2015	Presentation	An automated system for performing a figured bass realization with a live performer in real time. *International Conference of the Historical Keyboard Society of North America*, Montréal, QC.
March, 2015	Presentation	Discovering music listening patterns in a large dataset of music listening logs. Music Information, Retrieval, Acquisition, Preservation graduate seminar. Department of Music Research, McGill University, Montréal, QC.
October, 2014	Presentation	Discovering music listening patterns in a large dataset of music listening logs. Seminar in Interdisciplinary Studies I. English Department, Concordia University, Montréal, QC.
October, 2014	Presentation	La música no se detiene: En la búsqueda de la innovación en la nueva economía de la música. *Segundo Festival Internacional de Innovación Social*. Santiago, Chile.
October, 2014	Presentation	La música no se detiene: En la búsqueda de la innovación en la nueva economía de la música. Departamento de Música y Sonología, Facultad de Artes, Universidad de Chile.
October, 2014	Poster	Time-shift normalization and listener profiling in a large dataset of music listening histories. *Fourth Annual Seminar on Cognitively Based Music Informatics Research*. Toronto, ON.
July, 2014	Poster	Identifying time zones in a large dataset of music listening logs. *International Workshop on Social Media Retrieval and Analysis*. Gold Coast, Australia.
November, 2013	Poster	Musicbrainz for the world: The Chilean experience. *14th International Society for Music Information Retrieval Conference*. Curitiba, Brazil.
November, 2013	Poster	Optical measure recognition in common music notation. *14th International Society for Music Information Retrieval Conference*. Curitiba, Brazil.
May, 2012	Presentation	A quantitative comparison of position trackers for the development of a touch-less musical interface. *12th International Conference on New Interfaces for Musical Expression*. Ann-Arbor, MI.
October, 2011	Poster	Automatic pitch detection in printed square notation. *12th International Society for Music Information Retrieval Conference*. Miami, FL.
March, 2011	Presentation	Training Gamera. CIRMMT Axis 3 Workshop on Optical Music Recognition. Center for Interdisciplinary Research in Music, Media and Technology. Montréal, QC.
October, 2010	Presentation	Using WebMiner 2.0 to improve music classification performance by combining different types of features mined from the web. CIRMMT Axis 3 Workshop on music information retrieval and cultural metadata. Center for Interdisciplinary Research in Music, Media and Technology. Montréal, QC, Canada.
August, 2010	Poster	Using jWebMiner 2.0 to improve music classification performance by combining different types of features mined from the web. *11th International Society for Music Information Retrieval Conference*. Utrecht, Netherlands.
June, 2010	Presentation	Soundcatcher: Explorations in audio-looping and time-freezing using an open-air gestural controller. *2010 International Computer Music Conference*. New York, NY.
June, 2010	Workshop	Music information retrieval for composition and performance. *2010 International Computer Music Conference* workshop. With Ben Lacker and Rebecca Fiebrink. Harvest Works. New York, NY.

| May, 2010 | Poster and Concert | SoundCatcher: Explorations in audio-looping and time-freezing using an open-air gestural controller. CIRMMT Student Symposium 2010. Center for Interdisciplinary Research in Music, Media and Technology. Montréal, QC. |

MUSIC

Projects

2014–PRESENT	COMPOSER & PERFORMER, VIGLIENSONI
	Composer, producer, and live performer for the solo project *vigliensoni.*
2001–2009	COMPOSER & PERFORMER, MISMOS
	Composer, producer, and live performer for the electroacoustic band *Mismos.*
2003–2005	PERFORMER, ELECTRODOMÉSTICOS
	Keyboard player of the band *Electrodomésticos*.
1991–1998, 2012–2014	COMPOSER & PERFORMER, LUCYBELL
	Founding member and composer of the band *Lucybell.* Earned gold and double platinum albums and toured extensively in Chile, México, Perú, Argentina, Colombia, Ecuador, Canada, and United States.

Awards

2023	BEST ELECTRONIC MUSIC ARTIST. *CLASTIC MUSIC* by VIGLIENSONI PREMIO PULSAR. SOCIEDAD CHILENA DEL DERECHO DE AUTOR (SCD)
1998	GOLD ALBUM. *LUCYBELL* by LUCYBELL INTERNATIONAL FEDERATION OF THE PHONOGRAPHIC INDUSTRY (IFPI)
1997	PLATINUM ALBUM. *VIAJAR* by LUCYBELL INTERNATIONAL FEDERATION OF THE PHONOGRAPHIC INDUSTRY (IFPI)
1996	PLATINUM ALBUM. *PECES* by LUCYBELL. INTERNATIONAL FEDERATION OF THE PHONOGRAPHIC INDUSTRY (IFPI)

Music releases (last 10 years)

2022	VIGLIENSONI + CMD – SCINTILLATION (Dance Across Borders DAB003)
2022	VIGLIENSONI – CLASTIC MUSIC (Chez.Kito.Kat Records CKK085)
2021	TRAGATIERRA – OLA DE CALOR/TRAGATIERRA (Santiago Récords)
2018	VIGLIENSONI – TEMPEST (A Magical Substance, AMS007)
2018	VIGLIENSONI – MICHAEL SAVED US ALL (Noproblematapes, NOP079)
2016	VIGLIENSONI – IMÁGENES PAGANAS (A Magical Substance, AMS005)
2015	VIGLIENSONI – JAGUAR (Clang, clang029)
2015	VIGLIENSONI – TIENE QUE PARAR AHI (A Magical Substance, AMS003)
2014	VIGLIENSONI – LE RÈGNE ANIMAL (A Magical Substance)
2013	LUCYBELL – PODEROSO (Independent, 00000000101010)

Performance (last 10 years)

| July, 2024 | Vigliensoni. Weaving memory matter. *CCI/UAL Holborn*. London, UK. |

March, 2024	Vigliensoni. Weaving memory matter. *IRCAM Forum 30th Anniversary*. Paris, France.
February, 2024	Vigliensoni. Clastic music. *Kilele Festival@The Mist*. Nairobi, Kenya.
May, 2023	Vigliensoni. Armable #1. Montréal, QC
February, 2023	*Holy Waters*. Transmediale 2023. Sound design for installation by Antonia Hernández. Berlin, Germany.
November, 2022	Vigliensoni b2b CMD. Montréal dances across borders Vol. 3 release. Montréal, QC.
November, 2022	Vigliensoni. EPA! #5. Santiago, Chile
October, 2022	Alejandra Pérez, Gabriel Vigliensoni, Kamila Govorcin. *Stecher Sound Immersive Lab*. Santiago, Chile
October, 2022	Vigliensoni + Tragatierra. *Club Horizonte*. Santiago, Chile
October, 2022	Vigliensoni. *Madrid 1141*. Santiago, Chile.
September, 2022	Vigliensoni. *18 Festival Internacional de Música y Nuevas Tecnologías Visiones Sonoras 2022*. Centro Mexicano para la Música y las Artes Sonoras. Morelia, México.
September, 2022	Vigliensoni. *316Centro*. Mexico City, México.
June, 2022	Vigliensoni. Analove my log. L'Aerogare. Metz, France.
June, 2022	Vigliensoni. Clastic music. Iklectik. London, UK.
April, 2022	Vigliensoni. Analove my log. La Shop. Montréal, QC.
November, 2021	Vigliensoni. Rhythmic explorations in latent spaces. Live performance at Iklectik. London, UK.
August, 2021	Vigliensoni. Clastic Music. Live performance at the *22nd International Festival of Digital Creativity and Electronic Music	MUTEK 2021*. Montréal, QC.
May, 2021	Vigliensoni. Clastic Music. Telematic performance at *Campos Futuros	Universidad Andrés Bello*. Santiago, Chile. Online.
September, 2020	Vigliensoni. Clastic Music. Live performance at the *21st International Festival of Digital Creativity and Electronic Music	MUTEK 2020*. Montréal, QC.
July, 2020	Vigliensoni. RELS–Rhythmic explorations in latent spaces. Telematic performance at the *Network Music Festival*. London, UK. Online.
July, 2020	Vigliensoni and Louis McCallum. LoverDre84. Telematic performance at the *Network Music Festival*. Online.
March, 2020	Vigliensoni. RELS–Rhythmic explorations of latent spaces. Live performance at the Montréal Institute for Learning Algorithms (MILA). Montréal, QC.
February, 2020	Vigliensoni. Tempest. Live performance at Earth Kitchen. London, UK.
January, 2020	Mismos. Live performance at Casa República. Santiago, Chile.
January, 2020	Vigliensoni. Live performance at Estudio de Campo. Santiago, Chile.
December, 2019	Vigliensoni. Live performance at Noa-Noa. Santiago, Chile.
February, 2019	Vigliensoni. Live performance at Le National. Montréal, QC.
February, 2019	Vigliensoni. Live performance at The Opera House. Toronto, ON.
October, 2018	Vigliensoni. Live performance at Théâtre Fairmount. Montréal, QC.
September, 2018	Vigliensoni. Live performance at Centre Canadien d'Architecture. Montréal, QC.
August, 2018	Vigliensoni. Live performance at the *19th International Festival of Digital Creativity and Electronic Music	MUTEK 2018*. Montréal, QC.
July, 2013	Lucybell. Universidad Federico Santa María. Valparaíso, Chile.
July, 2013	Lucybell. Teatro Municipal. Temuco, Chile.
September, 2012	Lucybell. Cabaret du Mile End. Montréal, QC.

September, 2012	Lucybell. Teatro Metropolitan. México City, México.
Agosto, 2012	Lucybell. Centro María Angola. Lima, Perú.
July, 2012	Lucybell. Centro de Eventos Enjoy. Los Andes. Chile.
June, 2012	Lucybell. Arena Puerto Montt. Puerto Montt. Chile.
June, 2012	Lucybell. Teatro Caupolicán. Santiago, Chile.

Other music credits (last 10 years) Roles: **C**omposer | **P**erformer | **M**usic producer | **A**udio engineer | **S**ound designer

2024	**DRY WATER** – Video opera in seven tableaux vivant by Antonia Hernández **(C|P|M|S)**
2024	**THE DRAMA OF IMAGE PRODUCTION** – Digital art piece by Fran González **(C|M)**
2021	**MONO O ESTÉREO** – IGUALES O DISTINTOS Vigliensoni Phasing Mix *(*Pueblo Nuevo, PN191*)* **(M|A)**
2020	**FRANCISCO PINTO –** CRYSTAL Vigliensoni Clear Version (Pueblo Nuevo, PN158) **(M|A)**
2019	**DEDOSMUERTOS –** LOBO Vowel Remix (Independent) **(M|A)**
2017	**DEDOSMUERTOS –** DEDOSMUERTOS (Discos Pendiente, DPLP47) **(P|M)**
2016	**SILVIO PAREDES –** POPTRONICS REMIXES (Clang) **(P|M|A)**
2015	**EQUIPO** – SIMULACIONES REVISITED (Clang) **(P|M|A)**
2014	**FRANCISCO GONZÁLEZ** – ALMA PÚRPURA (Haiku Records) **(P)**

Art residencies

October, 2022	**STECHER SOUND IMMERSIVE LAB.** SANTIAGO, CHILE
March, 2020	**MUTEK AI ART LAB.** MONTREAL, QC, CANADA

COMMUNITY

Conference organization, program committees, peer reviewing, and mentoring

2024	Peer reviewer, NeurIPS Creative AI track
2024	Peer reviewer, Internet of Sounds conference, IEEE IS[2]
2024	Program committee member, XAIxArts workshop, part of ACM Creativity and Cognition
2020–2023	Program committee member, DLfM
2020	Peer reviewer, Network Music Festival
2020	Music track co-chair, International Society for Music Information Retrieval (ISMIR) 2020 conference
2020	Virtual conference organization committee member, ISMIR 2020
2020	Proceedings chair, Digital Libraries for Musicology (DLfM) conference
2019–PRESENT	Mentor, Women in music information retrieval (WiMIR) mentoring program
2019–2023	Peer reviewer, MDPI Applied Sciences journal
2019–2023	Peer reviewer, Transactions of the International Society for Music Information Retrieval (TISMIR) journal
2019–2023	Program committee member, International Workshop on Reading Music Systems

2019–2021	Peer reviewer, Iberian Conference on Pattern Recognition and Image Analysis
2019–2021	Peer reviewer, CIRMMT-OICRM-BRAMS Student Symposium
2018–2023	Program committee member, meta-reviewer, ISMIR
2018–2021	Peer reviewer, PLOS One Open Access journal
2018–2019	Program committee member, Intelligent Music Interfaces for Listening and Creation workshop
2016–2019	Peer reviewer, Journal of the Association for Information Science and Technology
2015–2023	Peer reviewer, ISMIR
2007–2008	Peer reviewer, AcreditaUC. Comisión Nacional de Acreditación, Chile

Affiliations

2024–PRESENT	**CENTRE FOR INTERDISCIPLINARY RESEARCH IN MUSIC MEDIA AND TECHNOLOGY.** CANADA Regular member. Research axes RA1, RA2, RA3, and RA4.
2023–PRESENT	**APPLIED AI INSTITUTE.** CANADA Member
2023–PRESENT	**MILIEUX INSTITUTE,** CANADA Member. Research clusters LeParc and Speculative Life.
2023–PRESENT	**DIGITAL RESEARCH ALLIANCE OF CANADA.** CANADA Faculty member
2021–2024	**CENTRE FOR INTERDISCIPLINARY RESEARCH IN MUSIC MEDIA AND TECHNOLOGY.** CANADA Collaborator
2021–PRESENT	**CANADA COUNCIL FOR THE ARTS.** CANADA Profiles approved: Music professional, Composer or Sound creator, Musician
2020–2022	**MIMIC PROJECT.** GOLDSMITHS UNIVERSITY OF LONDON, UNIVERSITY OF THE ARTS LONDON, UK Visiting researcher
2020–2022	**EMBODIED AUDIOVISUAL INTERACTION GROUP.** GOLDSMITHS UNIVERSITY OF LONDON, UK Visiting researcher
2019–2020	**DISTRIBUTED DIGITAL MUSIC ARCHIVES & LIBRARIES LAB.** MCGILL UNIVERSITY, CANADA Research associate
2017–2019	**SPECULATIVE LIFE CLUSTER.** CONCORDIA UNIVERSITY, CANADA Student member
2013–2017	**ASSOCIATION FOR COMPUTING MACHINERY (ACM)** Full member
2011–2017	**INTERNATIONAL COMPUTER MUSIC ASSOCIATION (ICMA)** Student member
2010–PRESENT	**INTERNATIONAL SOCIETY FOR MUSIC INFORMATION RETRIEVAL (ISMIR)** Member
2010–2020	**CENTRE FOR INTERDISCIPLINARY RESEARCH IN MUSIC MEDIA AND TECHNOLOGY.** CANADA Student member
2009–2011	**INPUT DEVICES AND MUSIC INTERACTION LAB.** MCGILL UNIVERSITY, CANADA Graduate student
1996–PRESENT	**SOCIEDAD CHILENA DEL DERECHO DE AUTOR (SCD)**, CHILE Active member

LANGUAGE SKILLS

ENGLISH   Proficient (C2)
FRENCH   Upper intermediate (B2)
SPANISH   Native