

## Curriculum Vitae

### Personal details

Full name (Given Names and Surnames):	Juan Ignacio Mendoza Garay
Sex:	male
Date and Place of Birth:	1 <sup>st</sup> January, 1978 in Santiago de Chile
Citizenship:	chilean
Residence:	Finland
Website with works:	<a href="https://juigmend.github.io/">https://juigmend.github.io/</a>
Software:	<a href="https://github.com/juigmend?tab=repositories">https://github.com/juigmend?tab=repositories</a>
ORCID:	<a href="https://orcid.org/0000-0003-3996-7537">0000-0003-3996-7537</a>
Date of the CV:	14 August, 2024

### Degrees

13/12/2023: Doctor of Philosophy – Musicology. University of Jyväskylä, Finland <a href="https://www.jyu.fi/en/study-with-us/doctoral-programme-of-the-department-of-music-art-and-culture-studies-spring-2024">https://www.jyu.fi/en/study-with-us/doctoral-programme-of-the-department-of-music-art-and-culture-studies-spring-2024</a>
26/6/2014: Master of Arts – Music, Mind and Technology. University of Jyväskylä, Finland. <a href="https://www.jyu.fi/hytk/fi/laitokset/mutku/en/studies/mmt/Courses/mmt">https://www.jyu.fi/hytk/fi/laitokset/mutku/en/studies/mmt/Courses/mmt</a>
12/9/2005: Professional Certificate – “Composición y Arreglos de Música Popular” (Music Composition and Arrangements). “Instituto Profesional Escuela Moderna”, Chile. <a href="https://emoderna.cl/carreras/composicion/">https://emoderna.cl/carreras/composicion/</a>

### Other education and expertise

<p><u>Summary of skills</u></p> <p>Computer programming experience:</p> <ul style="list-style-type: none"> <li>• Python, Matlab, and Octave: Linear algebra, statistics, machine learning, music Information retrieval, motion analysis, signal processing, data scraping, data visualisation.</li> <li>• Pure Data and Max: Prototyping, user interfaces, video tracking, motion capture, machine learning; audio synthesis, recording, processing and playback; networking (e.g., UDP, OSC).</li> <li>• HTML (with CSS and Javascript), Flask: Website development.</li> <li>• SQL: Relational databases.</li> </ul> <p>Software end-user experience:</p> <ul style="list-style-type: none"> <li>• Protools, Digital Performer, Cubase, Audacity and other software for recording and processing digital audio.</li> <li>• Music notation software Sibelius and Finale.</li> <li>• MS Office, Libre Office, LaTeX and other word processing, typesetting, spreadsheet, and related software.</li> </ul> <p>Other technical skills:</p> <ul style="list-style-type: none"> <li>• Motion Capture: Accelerometry, video tracking, infrared marker-based optical motion capture (e.g., Qualisys).</li> <li>• Sound recording in studio and field.</li> <li>• Musical instruments: Computer, electric bass, functional guitar and keyboards, and elementary percussion.</li> </ul>
9/2016 to date: Practical Defensive Fighting System (civilian self-defence) and Escrima (traditional martial art from Philippines). Instructor Kai Koskinen, Aikiken dojo (Finland), <a href="http://www.aikiken.fi">www.aikiken.fi</a> .
10/2013 to 1/2014: Machine Learning, 10 weeks online course by prof. Andrew Ng (Stanford University – Coursera).
17-27/8/2010: Composition workshops "Copiu" and "Yareta" by composer Luca Belcastro (Italy), Universidad de Chile, Universidad Arcis, Instituto Profesional Escuela Moderna de Música, Instituto Projazz, Instituto Arcos (universities and other music schools in Santiago, Chile).
8/2009: Ai-Maako festival in Valdivia, Chile: - Lectures by composers Elsa Justel (Argentina) and Annette Vande Gorne (Belgium); Multichannel Sound Systems - Carlos Irrazabal (Chile); Introduction to Software Programming for Live Electronics Music - Dr. Miller Puckette (USA), Dr. Cort Lippe (USA), Dr. Zack Settel (Canada).
7-8/2008: Composition and Mastering for Electroacoustic Music - Dr. Federico Schumacher. Santiago, Chile.
10/2007: Ai-Maako festival in Santiago, Chile, academic activities at universities in Santiago de Chile: Speed Composition - Ake Parmerud (Sweden) – LATEM/PUC; Composers Desktop Project - Trevor Wishart (United Kingdom) – LAIM/ARCIS; Composition - Lecture - João Pedro Oliveira (Portugal) – ALMA/UDP.
7/2006: IRCAM software tools by Eric Daubresse (IRCAM/France). Pontificia Universidad Católica de Chile (university in Santiago, Chile).

5/2006: "Introducción a SuperCollider 3" (Introduction to Supercollider 3 - workshop) by Félix Lazo – Laboratorio Arcis de Informática Musical (university computing facility), Santiago de Chile.
12/2005: Third Eye Orchestra laptops ensemble workshop by Hans Tannen (Germany); Circuit Bending - workshop by Joker Nies (Germany). "Transitio" festival of arts and new technologies in Ciudad de México, México.
9/2005 to 2/2006: "Herramientas y Estrategias para la Composición en Música Electroacústica" (Tools and Strategies for Composition in Electroacoustic Music) with Dr. Rodrigo Sigal. Morelia and Ciudad de México, México.
5/2005: "Seminario de composición de música acusmática" (Acousmatic Music Composition - seminar) by Federico Shumacher - CMT Escuela de Música SCD (music school in Santiago de Chile).
2004 to 2005: Private tuition on Electroacoustic Music with Dr. Rodrigo Sigal (Mexico). Santiago de Chile.
2004: "Taller de relato" (Storytelling workshop) by Prof. Carlos Flores - Escuela de Cine de Chile (Film Arts School in Santiago de Chile).
2004: "Música para cine y TV" (Music for Film and TV) by composer Osvaldo Montes (Uruguay) - Andrea Films/ Escuela Moderna (music school in Santiago de Chile).
2004: "Seminario de música electroacústica" (Electroacoustic Music seminar) by Dr. Rodrigo Sigal (Mexico) - CMT Escuela de Música SCD (music school in Santiago de Chile).
2004: "Taller de especialización de música electroacústica" (Electroacoustic Music Spatialisation - workshop) by Prof. Federico Shumacher - Festival Internacional de Música Electroacústica de Santiago "Ai-Maako" (international electroacoustic music festival in Santiago de Chile).
2003 to 2004: Workshop of recorder contemporary techniques "In-ventando" by Carmen Troncoso - Escuela Moderna/Pontificia Universidad Católica de Chile (university in Santiago de Chile).
1996 to 1999: Licenciatura en Artes con Mención en Sonido (BA in Audio Technology). Universidad de Chile (university in Santiago de Chile). Incomplete.

### Language skills

Native: Spanish
Other: English (C2), French (A2), Finnish (A2)

### Current employment

From 1/1/2024: Freelance data specialist.
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### Previous work experience

25/3/2024 to 31/5/2024: Programmer of signal processing and machine learning software for Tabula Rasa project ( <a href="https://www.parasense.fi/">https://www.parasense.fi/</a> ), Finland.
29/9/2014 to 31/12/2023: Doctoral researcher at the University of Jyväskylä, Finland.
11/1/2021 to 10/6/2022: Part-time teacher of Music Technology at the University of Jyväskylä, Finland. Teaching periods: January to June of 2022, October to December of 2021, January to May of 2021.
2014: Part-time researcher for Music Cognition research project. Funded by Fondo de la Música del Consejo Nacional para la Cultura y las Artes (Chilean government culture ministry). Executed in Finland.
2013 to 2014: Part-time fund-raiser and manager for project "Educación de la Voz y Dirección Coral In Situ para Directores de Coros" (Project for promotion of choirs in Chile). Funded by Fondo de la Música del Consejo Nacional para la Cultura y las Artes (Chilean government culture ministry). Executed in Finland.
10/2013 to 11/2013: Part-time research assistant for investigation "The tactical resources of musical styles, instruments and musicians" conducted by Marko Aho. Computer assisted music analysis. Funded by Emil Aaltonen Foundation, at the University of Jyväskylä, Finland.
2012 to 2013: Fund-raiser and manager for project "Formación en Competencias Para la Actividad Coral" (Project for promotion of choirs in Chile). Funded by Fondo de la Música del Consejo Nacional para la Cultura y las Artes (Chilean government culture ministry). Executed in Finland.
4/2013 to 6/2013: Part-time research assistant for music psychology investigation conducted by Suvi Saarikallio. Operator of motion capture, video, and audio recording equipment. University of Jyväskylä, Finland.
9/1/2012 to 13/1/2012: Lecturer of short course "Taller Música para Medios Audiovisuales" (Workshop Music for Audiovisual Media) at Universidad Austral de Chile UACH (university in Valdivia, Chile).
2011 to 2012: Part-time copyist and librarian for "Orquesta de Los Rios" (chamber orchestra in Valdivia, Chile).
2011: Part-time lecturer of Counterpoint, Harmony and Composition for "Pedagogía en Artes, Mención Música" (pedagogy of music education) at Universidad de Los Lagos (university in Puerto Montt, Chile).

18/10/2010 to 15/6/2011: Part-time project manager and teacher for the course "Capacitación en Artes Musicales para Profesionales de la Educación de la Región de Los Ríos" (Project for promotion of choirs in Chile). Funded by Fondo de la Música del Consejo Nacional para la Cultura y las Artes (Chilean government culture ministry),
2009 to 2012: Part-time music teacher at elementary and secondary schools in Chile.
2008 to 2012: Part-time composer, project manager and administrator. Off-shore service for "The Composer Collective" (film scoring business based in Los Angeles, California). Executed in Chile. <a href="https://www.imdb.com/name/nm3255768/">https://www.imdb.com/name/nm3255768/</a>
2007 to 2008: Salesperson at musical instruments store "Audiomusica" in Santiago, Chile.
2006 to 2007: Translator English-Spanish of TV scripts at "Doblajes Internacionales", Santiago, Chile.
2003 to 2012: Part-time private teacher of music composition and music technology in Chile.
2003 to 2012: Part-time and full-time freelance music composer and arranger based in Chile. Produced music for cinema, TV, theatre, and others, in various genres and for different ensembles such as orchestra, chamber, electroacoustic (acousmatic, live and mixed), popular, big-band, folk, electronica, etc.

### Research funding and grants

1/2022 to 6/2022: Personal grant for doctoral dissertation. €13000. Suomen Kulttuurirahasto (The Finnish Cultural Foundation).
9/2019 to 8/2020: Personal grant for doctoral dissertation. €22000. Tekniikan Edistämissäätiö (The Finnish Foundation for Technology Promotion).
1/2016 to 12/2016: Scholarship for doctoral studies. €19200. University of Jyväskylä, Finland.
1/2015 to 3/2015: Scholarship for doctoral studies. €4800. University of Jyväskylä, Finland.
11/2014 to 1/2015: Scholarship for doctoral studies. €3200. University of Jyväskylä, Finland.
12/2013: Scholarship for international degree students. €1500. University of Jyväskylä, Finland.
2014: Music Cognition research project. CLP\$1.600.000 (€1700). Consejo Nacional para la Cultura y las Artes (Chilean government's Ministry of Education).
2013 to 2014: Project for promotion of choirs in Chile. CLP\$14.994.829 (€15800). Consejo Nacional para la Cultura y las Artes (Chilean government's Ministry of Education).
2012 to 2013: Project for promotion of choirs in Chile. No record of funding amount. Consejo Nacional para la Cultura y las Artes (Chilean government's Ministry of Education).
18/10/2010 to 15/6/2011: Project for promotion of choirs in Chile. No record of funding amount. Consejo Nacional para la Cultura y las Artes (Chilean government's Ministry of Education).
9/2005 to 2/2006: Grant to study composition of electroacoustic music with Dr. Rodrigo Sigal in Mexico. No record of funding amount. Consejo Nacional para la Cultura y las Artes (Chilean government's Ministry of Education).

### Research output

Total number of peer-reviewed publications (articles, book chapters and theses): 11
List of all publications—including software—as appendix.

### Teaching merits \*

Semester-long course "Introduction to Music Technology". Teaching and development of content and material. University of Jyväskylä. Academic years 2021 and 2022. Co-taught 1 time online, taught alone 2 times hybrid.
Guest lectures, workshops, teaching assistance, and mentoring of master's degree students at the Department of Music, Art, and Culture Studies, University of Jyväskylä. 2015 to 2023

\* Only activities in Finland. Other teaching under "Previous work experience".

### Other merits

2016 to 2020, 2023: Organisation of outreach event "European Researcher's Night" at the Department of Music, Art, and Culture Studies, University of Jyväskylä, Finland.
2004 to 2011: Organisation of international electroacoustic music festival "Ai-Maako" in Santiago and Valdivia, Chile.

## APPENDIX: List of publications

In journals, peer-reviewed:
Thompson, M.R., Mendoza, J.I., Luck, G., & Vuoskoski, J.K. (2023). Relationships between Audio and Movement Features, and Perceived Emotions in Musical Performance. <i>Music and Science</i> , 6. <a href="https://doi.org/10.1177/20592043231177871">https://doi.org/10.1177/20592043231177871</a> Contribution: Extraction of audio features and motion features; regression and correlation analyses; literature review; writing of first draft.
Mendoza, J.I. (2022). Segmentation Boundaries in Accelerometer Data of Arm Motion Induced by Music: Online Computation and Perceptual Assessment. <i>Human Technology</i> , 18(3), 250–266. <a href="https://doi.org/10.14254/1795-6889.2022.18-3.4">https://doi.org/10.14254/1795-6889.2022.18-3.4</a>
Mendoza, J.I., Burger, B., & Luck, G. (2022). Exploring Relations Between Big Five Personality Traits and Musical Emotions Embodied in Spontaneous Dance. <i>Psychology of Music</i> , 51(4). <a href="https://doi.org/10.1177/03057356221135355">https://doi.org/10.1177/03057356221135355</a>
Thompson, M. R., & Mendoza, J. I. (2014). Review of New Perspectives in Music and Gesture. <i>Psychomusicology: Music, Mind and Brain</i> , 24(4). p.344-350. <a href="http://dx.doi.org/10.1037/pmu0000084">http://dx.doi.org/10.1037/pmu0000084</a> Preprint: <a href="http://urn.fi/URN:NBN:fi:jyu-201508132654">http://urn.fi/URN:NBN:fi:jyu-201508132654</a> Contribution: Writing of 50%.
In conference proceedings, peer-reviewed:
Mendoza, J.I. (2023). The Rearranger Ball: Delayed Gestural Control of Musical Sound using Online Unsupervised Temporal Segmentation. In <i>Proceedings of the International Conference on New Interfaces for Musical Expression</i> . <a href="https://nime.org/proc/nime2023_19/index.html">https://nime.org/proc/nime2023_19/index.html</a>
Touizar, M., Mendoza, J. I., & Thompson, M. R. (2022). Links between Embodiment and Perceived Brightness in Orchestral Music. In <i>Psychology and Music–Interdisciplinary Encounters, Conference Proceedings</i> , 17. <a href="https://www.fmu.bg.ac.rs/wp-content/uploads/2023/07/01-touizar-et-al..pdf">https://www.fmu.bg.ac.rs/wp-content/uploads/2023/07/01-touizar-et-al..pdf</a> Contribution: Data collection, and method for quantifying expansion and contraction of the human body.
Mendoza, J.I., Danso, A., Luck, G., Rantalainen, T., Palmberg, L., & Chastin, S (2022). Musification of Accelerometry Data Towards Raising Awareness of Physical Activity. In <i>Proceedings of the Conference on Sonification of Health and Environmental Data</i> . <a href="https://doi.org/10.5281/zenodo.7243875">https://doi.org/10.5281/zenodo.7243875</a>
Mendoza, J.I. & Thompson, M.R. (2017). Modelling Perceived Segmentation of Bodily Gestures Induced by Music. In <i>Proceedings of the 25th Anniversary Conference of the European Society for the Cognitive Sciences of Music</i> . <a href="http://urn.fi/URN:NBN:fi:jyu-201711024121">http://urn.fi/URN:NBN:fi:jyu-201711024121</a>
Book chapter, peer-reviewed:
Mendoza, J.I., & Thompson, M.R. (2017). Gestural Agency in Human-Machine Musical Interaction. In <i>The Routledge companion to embodied music interaction</i> (pp. 412-419). New York, NY: Routledge. <a href="http://urn.fi/URN:NBN:fi:jyu-201801081081">http://urn.fi/URN:NBN:fi:jyu-201801081081</a>
Theses, peer-reviewed:
Mendoza, J.I. (2023). <i>Mimetic relationships between bodily movement and musical structure: theory, measurement, and application</i> . JYU Dissertations, University of Jyväskylä, Finland. <a href="http://urn.fi/URN:ISBN:978-951-39-9799-1">http://urn.fi/URN:ISBN:978-951-39-9799-1</a>
Mendoza, J. I. (2014). <i>Self-report measurement of segmentation, mimesis and perceived emotions in acousmatic electroacoustic music</i> . Master's thesis, University of Jyväskylä, Finland. <a href="http://urn.fi/URN:NBN:fi:jyu-201406192112">http://urn.fi/URN:NBN:fi:jyu-201406192112</a>
Software (sole author except *):
<i>Temporal Segmentation for Gestural Control</i> . Corresponding to Mendoza (2023). The Rearranger Ball: Delayed Gestural Control of Musical Sound using Online Unsupervised Temporal Segmentation. <a href="https://github.com/juigmend/temporal_segmentation_gestural_control">https://github.com/juigmend/temporal_segmentation_gestural_control</a>
<i>Multigranular Segmentation and Musification</i> . Corresponding to Mendoza et al. (2022). Musification of Accelerometry Data Towards Raising Awareness of Physical Activity. <a href="https://github.com/juigmend/multigranular-segmentation-and-musification">https://github.com/juigmend/multigranular-segmentation-and-musification</a>
Temporal Segmentation of Motion Capture Data. <a href="https://github.com/juigmend/mocap-temporal-segmentation">https://github.com/juigmend/mocap-temporal-segmentation</a>
Python scripts for data analysis, temporal segmentation, machine learning, and miscellaneous tasks. <a href="https://github.com/juigmend/python-miscellaneous">https://github.com/juigmend/python-miscellaneous</a>

Max8 patches for processing movement data. <a href="https://github.com/juigmend/max8-plethora">https://github.com/juigmend/max8-plethora</a>
Matlab scripts for data analysis, temporal segmentation, machine learning, and miscellaneous tasks. <a href="https://github.com/juigmend/matlab-miscellaneous">https://github.com/juigmend/matlab-miscellaneous</a> , <a href="https://github.com/juigmend/matlab-plethora">https://github.com/juigmend/matlab-plethora</a>
Pure Data patches for sound synthesis, motion tracking, gestural control, temporal segmentation, and miscellaneous tasks. <a href="https://github.com/juigmend/pure-data-plethora">https://github.com/juigmend/pure-data-plethora</a>
Extended version of the Mocap Toolbox 1.5. for Matlab * <a href="https://github.com/juigmend/mocaptoolbox_1_5_2">https://github.com/juigmend/mocaptoolbox_1_5_2</a>
Octave scripts for data analysis, temporal segmentation, machine learning, and miscellaneous tasks. <a href="https://github.com/juigmend/octave-miscellaneous">https://github.com/juigmend/octave-miscellaneous</a>