

Research interests

Computational linguistics, laboratory phonology, second language acquisition.

Education

- 2018–2023 **Ph.D. in Linguistics and SLATE (Second Language Acquisition and Teacher Education) with a Graduate Certificate in Computational Linguistics**, *University of Illinois Urbana-Champaign*
- Thesis title: *The learning the sounds of Japanese : experimental and computational approaches.*
 - Advisors: Dr. José Ignacio Hualde and Dr. Lane Schwartz
- 2021–2022 **Research student**, *University of Tokyo, Department of Electrical Engineering and Information Systems*
- Advisor: Dr. Nobuaki Minematsu
- 2018 **M.A. in Linguistics**, *University of Illinois Urbana-Champaign*
- 2015 **M.A. in Linguistics**, *University of Tokyo*
- Thesis title: *Gesture and timing configurations in Japanese vowel devoicing.*
 - Advisor: Dr. Shin-ichi Tanaka
- 2012 **B.A. in Letters (Linguistics)**, *Federal University of Minas Gerais*
- Thesis title: *A redução do ditongo [ãw] postônico na morfologia verbal do português brasileiro: uma abordagem baseada no uso (Unstressed [ãw] diphthong reduction in the verbal morphology of Brazilian Portuguese: a usage based approach).*
 - Advisor: Dr. Thaís Cristófaró Silva

Employment history

- 2023–present **Visiting Assistant Professor of Japanese**, *Whitman College*
- 2019 **Language Data Specialist Intern**, *SoundHound AI*
- Work content: Debugging of speech-to-text (STT) and text-to-speech (TTS) test results and progress tracking for new builds. Validation and annotation of benchmark and training data for accuracy in model builds. Transcription and mapping of phonetic sets in lexicons and speech corpora.

Honors and awards

- 2021 **Japanese Studies Fellowship**, Japan Foundation.
- 2017 **Student Leadership Award**, Department of Linguistics, University of Illinois Urbana-Champaign.

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- 2017 **Best Japanese Language Teaching Assistant**, Department of East Asian Languages and Cultures, University of Illinois at Urbana-Champaign.
- 2012-2015 **Research scholarship**, Ministry of Education, Sports, Culture, and Technology of Japan.
- 2011-2012 **Undergraduate research scholarship**, Brazilian National Council for Scientific and Technological Development.
- 2010 **Award at research fair**, XIX Week of Undergraduate Research at the Federal University of Minas Gerais.
- 2009-2010 **Undergraduate research scholarship**, Brazilian National Council for Scientific and Technological Development.

Journal publications and book chapters

- 2013 Cristófaró-Silva, Thaís. Fonseca, Marco. Cantoni, Maria. Conflict in patterns of lexical diffusion in diphthong reduction in Brazilian Portuguese. In: *The Phonological Society of Japan (org.)*. *Phonological Studies*, 16, 3-10. Tokyo: Kaitakusha.
- 2012 Cristófaró-Silva, Thaís. Fonseca, Marco. Cantoni, Maria. (Unstressed [ãw] diphthong reduction in the verbal morphology of Brazilian Portuguese: a usage-based approach). *Letras de Hoje*, 47, 283-292.

Complete papers in peer-reviewed conference proceedings

- 2023 Fonseca, Marco. The perception of Japanese lexical contrasts by L2 learners: the role of the lexicon. In: *Proceedings of the 20th International Conference on Phonetic Sciences*, Prague, Czech Republic.
- 2015 Fonseca, Marco. Cantoni, Maria. Cristófaró-Silva, Thaís. Acoustic and articulatory correlates of Japanese devoiced vowels. In: *Proceedings of the 18th International Conference on Phonetic Sciences*, Glasgow, Scotland.
- 2015 Fonseca, Marco. Seabra, Maria Cândida. Abreu, Natália. A presença de palavras japonesas no português brasileiro do século XX. (The presence of Japanese words in 20th century's Brazilian Portuguese). In: *Anais do VIII Congresso Internacional de Estudos Japoneses no Brasil e XXI Encontro Nacional de Professores Universitários de Língua, Literatura e Cultura Japonesa (Proceedings of the VIII International Conference on Japanese Studies in Brazil and XXI National Meeting of University Professors of Japanese Language, Literature and Culture)*. 501-506. University of Brasília, Brasília, Brazil.

Research assistantship experience

- 2020-2021 **Research assistant for Dr. Ryan Shosted**, *University of Illinois at Urbana-Champaign*
Phonetics and phonology lab assistant. Management of lab resources and schedule. Organized and gave workshops on how to use Praat and on speech data analysis using Python.

- 2020 **Research assistant for Dr. Lane Schwartz**, *University of Illinois at Urbana-Champaign*
(summer) *Champaign*
Helped in the online implementation of the course Ling 270: Language, technology and society.
- 2020 **Research assistant for Dr. Makoto Harris Takao**, *University of Illinois at Urbana-Champaign*
(summer) *Champaign*
Translated chapters of books, papers and forum entries from Japanese to English. Translated newspapers from the early 20th century from Portuguese and Japanese to English. Summarized chapters of Japanese academic books to English. Transcribed and translated video in Japanese to English.
- 2020 **Research assistant for Dr. José Ignacio Hualde**, *University of Illinois at Urbana-Champaign*
(summer) *Champaign*
Automatized data labeling task in Praat for Catalan data using Python script.
- 2015 **Research assistant for Dr. Isabelle Grenon**, *University of Tokyo*
Processing of fMRI data using Matlab.
- 2013-2015 **Research assistant for Dr. Yuki Hirose**, *University of Tokyo*
Managed subject pool data base, creating an R script to automatize processes that were done manually; recruited participants for experiments, assisted to students to perform experiments and analyzing data, performed maintenance of laboratory equipment, conducted sound data analysis in Praat, helped in designing psycholinguistic experiments.
- 2014 **Research assistant for Dr. Isabelle Grenon**, *University of Tokyo*
Statistical analysis of linguistic data in SPSS.
- 2009-2012 **Undergraduate research assistant for Dr. Thaís Cristófaró Silva**, *Federal University of Minas Gerais*
University of Minas Gerais
Assistant in the projects *Padrões acentuais na morfologia verbal e nominal (Accent patterns in the verbal, and nominal morphology)* and *Unidades representacionais em fonologia (Representational units in phonology)*.

Courses taught

Whitman College, as an assistant professor:

- Jpns 105: Elementary Japanese
- Jpns 305: Third-year Japanese
- Jpns 491: Anime Speech

University of Illinois, as an instructor:

- Ling 400: Intro to Linguistic Structure
- Ling 301: Elements of Phonology

University of Illinois, as a teaching assistant:

- Span 142: Spanish in the Professions
- Ling 400: Intro to Linguistic Structure
- Japn 201: Elementary Japanese I
- Japn 202: Elementary Japanese II
- Port 401: Intermediate Intensive Portuguese

University of Tokyo, as a teaching assistant:

- Methodological foundations of data analysis

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- English II: listening and comprehension
- English for the arts and sciences

Federal University of Minas Gerais, as a teacher at an outreach program:

- Basic English II

Invited talks

- 2023 Fonseca, Marco. The acquisition of the sounds of Japanese: experimentation and computational modeling. Purdue University, IN, USA.
- 2022 Fonseca, Marco. Multiculturalism and multilingualism: foreign languages learning and teaching and education in Brazil. Kyungpook National University Summer Program at the University of Illinois at Urbana-Champaign, IL, USA.
- 2018 Fonseca, Marco. Japanese vowel devoicing: experimental and corpus-based approaches. Linguistics Exploration, University of Illinois at Urbana-Champaign, IL, USA.
- 2018 Fonseca, Marco. Japanese vowel devoicing in spontaneous speech. Center for East Asian and Pacific Studies Brown Bag Talk Series, University of Illinois at Urbana-Champaign, IL, USA.

Conference presentations

- 2023 Fonseca, Marco. Japanese devoiced vowel tongue movement: acoustics and articulatory mapping. Poster presented at the 184th Meeting of the Acoustical Society of America, Hilton Magnificent Mile, Chicago, IL, USA.
- 2023 Fonseca, Marco. AUsing bilingual and monolingual LSTM RNNs to model Japanese phonological rules. Oral presentation at the 15th ILLS Conference, University of Illinois at Urbana-Champaign, IL, USA.
- 2023 Fonseca, Marco. Using bilingual and monolingual LSTM RNNs to model Japanese phonological rules. Oral presentation at the 15th ILLS Conference, University of Illinois at Urbana-Champaign, IL, USA.
- 2022 Fonseca, Marco. Phoneme embeddings vs. distinctive features using LSTM RNNs: evidence from Japanese). Oral presentation at the MidPhon 27, held at Washington University at St. Louis, MO.
- 2022 Fonseca, Marco. 機械学習を用いて英語と日本語の音素配列のモデル化 (Modeling Japanese and English phonotactics using machine learning). Oral presentation at the Tokyo Circle of Phonology, held online.
- 2021 Fonseca, Marco. 日本語における音変異：ニューラルネットワークのモデル化 (Modeling Japanese sound variation through neural networks). Oral presentation at the 第16回音韻論フェスタ (Phonology Festa 16), held online.
- 2021 Fonseca, Marco. Using monolingual and bilingual neural networks to model Japanese phonotactics. Poster presentation at the 25th Annual MidPhon Conference, held online

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- 2020 Fonseca, Marco. Dell, Brennan. Modeling optional sound variation and obligatory gesture assimilation using LSTM RNNs. Neural network models for articulatory gestures - Satellite workshop for 17th Conference on Laboratory Phonology, held online.
- 2019 Fonseca, Marco. An ultrasound study of Japanese vowel devoicing. Oral presentation at the Tokyo Circle of Phonologists, Tokyo, Japan.
- 2019 Fonseca, Marco. The perception of Japanese pitch accent and segmental contrasts by L2 learners. Poster presentation at the 2019 International Conference on Phonetics and Phonology at the National Institute of Japanese Language and Linguistics in Tachikawa, Tokyo, Japan.
- 2018 Matsumoto, Kazuko. Feijo, Flavia. Okumura, Akiko. Fonseca, Marco. Language and dialect contact: Bilingualism and koineization among a Brazilian community in Japan. Co-authored oral presentation at the 2018 Japan-Latin America Academic Conferee 2018 in Nikko, Tochigi, Japan.
- 2018 Fonseca, Marco. The role of the lexicon in the perception of different Japanese sound categories by L2 learners. Oral Presentation at the 23rd Annual MidPhon Conference, Northwestern University, IL, USA.
- 2018 Fonseca, Marco. The perception of Japanese lexical contrasts by L2 learners: the role of the lexicon. Oral presentation at the 10 ILLS Conference, University of Illinois at Urbana-Champaign, IL, USA.
- 2017 Fonseca, Marco. Duration of Japanese devoiced vowels in spontaneous speech. Oral presentation at the 22nd Mid-Continental Phonetics and Phonology, Ohio State University, OH, USA.
- 2017 Fonseca, Marco. Abstractionist vs. exemplar models: evidence from illusory vowels. Oral presentation at the 9 ILLS Conference, University of Illinois at Urbana-Champaign, IL, USA.
- 2016 Fonseca, Marco. A preliminary study of Japanese Yoga voice. Poster presentation at the 8 ILLS Conference, University of Illinois at Urbana-Champaign, IL, USA.
- 2016 Fonseca, Marco. Cantoni, Maria. Cristófaró-Silva, Thaís. The phonological representation of Japanese vowel devoicing. Poster presentation at LabPhon15, Cornell University, Ithaca, NY, USA.
- 2015 Fonseca, Marco. Cantoni, Maria. Cristófaró-Silva, Thaís. Acoustic and articulatory correlates of Japanese devoiced vowels. Poster presentation at the 18th International Conference on Phonetic Sciences, Glasgow, Scotland.
- 2014 Fonseca, Marco. Mendonça, Gustavo Augusto . A corpus analysis of Japanese vowel devoicing. Oral presentation at the 1st Dinafon International Meeting. University of Campinas, Campinas, Brazil.
- 2014 Fonseca, Marco. Oliveira, Nívia Aniele. Soares, Victor Hugo Medina. Hirose, Yuki. Implicit prosody in attribute attachment in Brazilian Portuguese. Poster presentation at the 1st Dinafon International Meeting. University of Campinas, Campinas, Brazil.
- 2014 Fonseca, Marco. Fujinaga, Kiyono. Implicit prosody in resolving syntactic ambiguity in Brazilian Portuguese. Oral presentation at the 9th Phonology Festa. Atami, Japan.

- 2012 Fonseca, Marco. Cristófaró-Silva, Thais. Cantoni, Maria. Unstressed [ãw] diphthong reduction in the verbal morphology of Brazilian Portuguese: a usage-based approach. Oral presentation at the Phonology Forum 2012. Tohoku Gakuin University, Sendai, Japan.
- 2011 Fonseca, Marco. Two routes of a segmental reduction. Poster presentation at III International Meeting on Speech Science. Federal University of Minas Gerais, Belo Horizonte, Brazil.
- 2011 Fonseca, Marco. Redução do ditongo [ãw] átono na morfologia verbal (Reduction of unstressed [ãw] diphthong in the verbal morphology). Oral presentation presented at XX Week of Undergraduate Research at the Federal University of Minas Gerais. Belo Horizonte, Brazil.
- 2011 Fonseca, Marco. The JLPT corpus: a guidance tool to Japanese Students. Poster presentation at X Corpus Linguistics Meeting, Federal University of Minas Gerais. Belo Horizonte, Brazil.
- 2010 Fonseca, Marco. Silva, Mário. The emergence of some phonological patterns in the verbal morphology of Brazilian Portuguese. Poster presentation at the São Paulo School of Advanced Studies in Speech Dynamics. University of São Paulo. São Paulo, Brazil.
- 2010 Fonseca, Marco. A influência de palavras japonesas no português brasileiro do século XX (“The influence of Japanese words in 20th century’s Brazilian Portuguese”). Oral presentation at the VIII Congresso Internacional de Estudos Japoneses no Brasil e XXI Encontro Nacional de Professores Universitários de Língua, Literatura e Cultura Japonesa. (“VIII International Conference on Japanese Studies in Brazil and XXI National Meeting of University Professors of Japanese Language, Literature and Culture”). University of Brasília, Brasília, Brazil.
- 2010 Fonseca, Marco. A redução de ditongos na morfologia verbal do português brasileiro (“Diphthong reduction in the verbal morphology of Brazilian Portuguese”). Poster presentation at the IV Dinafon Meeting. Federal University of Rio Grande do Sul, Porto Alegre, Brazil.
- 2010 Fonseca, Marco. O papel da frequência na emergência na morfologia verbal do Português Brasileiro (The role of frequency in the emergence in the verbal morphology of Brazilian Portuguese). Poster presented at the XIX Week of Undergraduate Research at the Federal University of Minas Gerais. Belo Horizonte, Brazil.

Service

Department service

- 2016-2017 **Co-president of the Linguistics Student Organization, University of Illinois Urbana-Champaign**
- Attended faculty meetings representing the student body, organized bake sales to raise funds to provide travel funding to students of the department, arranged lodging for new students coming to campus during visiting day, organized workshop on L^AT_EX.

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- 2016-2018 **Organizer of the Phonetics and Phonology Forum (F3)**, *University of Illinois Urbana-Champaign*
- Organized bi-weekly meetings in which grad students of the department and faculty present their original research.
- [Manuscript reviewer](#)
- 2023 **The 2023 Conference on Empirical Methods in Natural Language Processing**
- 2023 **International Congress of Phonetic Sciences 2023**
- 2021-present **Rolling Reviewer for the Association of Computational Linguistics (ACL)**
- 2021 **IACL-IJCNLP 2021 - Association for Computational Linguistics**
- 2019 **International Congress of Phonetic Sciences 2019**
- [Conference committees](#)
- 2018 **Illinois Language and Linguistics Society Conference 10**, *University of Illinois at Urbana-Champaign*
- 2017 **Illinois Language and Linguistics Society Conference 9**, *University of Illinois at Urbana-Champaign*
- 2015 **Illinois Language and Linguistics Society Conference 8**, *University of Illinois at Urbana-Champaign*
- [Mentorship](#)
- 2013 **Academic tutor for fellow graduate student**, *University of Tokyo*
- Details: helped the student with course and paper work at the university

Free-lance translation experience

- 2015 **Translation of the Online Japanese Accent Dictionary (Japanese to Portuguese)**, *University of Tokyo*
- Website: <http://www.gavo.t.u-tokyo.ac.jp/ojad/>
- 2012-2015 **Free-lance proof-reader of Portuguese**, *Nikkei Research Inc*
- 2014-2015 **Free-lance translator (Portuguese to Japanese)**, *Axial*
- Details: created Japanese subtitles of documentaries concerning Brazil that were exhibited in the TV broadcasting TBS.
- 2014-2015 **Free-lance translator (Portuguese to Japanese)**, *Glue and Company*
- Details: created Japanese subtitles documentaries concerning Brazil that were exhibited in the TV broadcasting NHK.

Languages

Portuguese	native speaker
English	fluent
Japanese	fluent
Spanish	fluent
German	intermediate
Korean	intermediate

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Technical skills

- Data Analysis: R, SPSS, Praat.
- Experimental platforms: Qualtrics, PsychoPy.
- Programming languages: Python, Java.
- Mark-up languages: XML, \LaTeX , HTML, JSON.