

Marisel Grace Gonzales

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Education

UC Merced, Ph.D. Cognitive & Information Sciences

August 2020 - Present

- Advisors: Kristina Backer, Ramesh Balasubramaniam
- Expected to graduate in Fall 2025

UC Merced, B.S. in Ecology and Evolutionary Biology with a minor in Cognitive Science

May 2018

Achievements

- Chancellor's List (2018)
 - Dean's List (2017, 2018)
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Professional Experience

Research Experience

Department of Cognitive & Information Sciences, UC Merced — Merced, CA

Feb 2019 - Nov 2019

Multisensory Neurophysiology Research Lab Manager

- Under Dr. Antoine Shahin, managed a research lab exploring the cause of the McGurk Effect
- Used MATLAB and Adobe Audition to create and edit auditory and visual stimuli
- Recruited participants and conducted behavioral research via Neurobehavioral Systems Presentation
- Worked closely with the principal investigator in developing research design and methods of data evaluation

Department of Cognitive Science, UC Merced — Merced, CA

Jan 2018 - Nov 2019

Simbrain Lab Assistant

- Under Dr. Jeffrey Yoshimi, assisted in the development of Simbrain, a computer tool for creating artificial neural networks. Simbrain website: <http://simbrain.net/>
- Tested pre-made and self-made simulations to ensure program workability and accuracy
- Helped implement operant and classical conditioning in Simbrain based on Sniffy the Virtual Rat

Department of Cognitive Science and Linguistics, UC Merced — Merced, CA

Cancer Metaphors Research Lab Assistant

Nov 2016 - May 2017

- Under Dr. Oana David, supervised by Dr. Teenie Matlock, assisted in research on the use of cancer metaphors
- Scraped the web for relevant metaphorical language in cancer discourse, including but not limited to: personal blogs and scientific literature
- Explored the connection between the grammatical and conceptual expressions of metaphors in general and cancer metaphors in particular
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Teaching Experience

Department of Cognitive & Information Sciences, UC Merced — Merced, CA

Aug 2020 - May 2025

Teaching Assistant

Cogs 149/GASP 103 - Music, Language, and Cognition (Jan 2025 - May 2025)

Phil 008 - Sex, Love, And Gender (Jan - May 2021/23/24, Aug - Dec 2024)

Cogs 125/CSE 175 - Intro to AI (Aug 2023 - Dec 2023)

Cogs 130 - Cognitive Neuroscience (Jan 2022 - May 2022)

Cogs 001 - Introduction to Cognitive Science (Aug - Dec 2020/22)

Cogs 203 - Introduction to Neural Networks in Cognitive Science (Aug 2021 - Dec 2021)

- Oversaw discussion sections and computer labs
 - Provided support to course instructors by evaluating coursework and assisting in class-related activities
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Software Tools

- Matlab (EEGLab, ERPLab, Fieldtrip, MIRtoolbox)
 - Neurobehavioral Systems Presentation
 - R Studio
 - Python
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Other Professional Experience

- Mentor - Mentorship for Under-Graduates (MUG) Program, 2024-2025
 - Co-chair - CIS Graduate Student Group, 2022-2023
 - VP & Co-Founder - Professional Networking and Diversity Outreach, 2021-2023
 - Professional Development Officer - CIS Graduate Student Group, 2021-2022
 - Co-host - CIS Brownbag Graduate Student Seminar, 2020
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Publications

1. Shahin, A., **Gonzales, M.**, Dimitrijevic, A. (2024). Cross-Modal Tinnitus Remediation: A Tentative Theoretical Framework. (Published),
 2. *Santoyo, A., ***Gonzales, M.**, *Iqbal, Z., Backer, K. C., Balasubramaniam, R., Bortfeld, H., Shahin, A. J. (2023). Neurophysiological time course of timbre-induced music-like perception. (Published).
*Equal-contribution first authors
 3. **Gonzales, M.**, Backer K. C., Yan, Y., Miller, L., Bortfeld, H., & Shahin, A.J. (2022). Audition controls the flow of visual time during multisensory perception. (Published).
 4. **Gonzales, M.**, Backer K. C., Mandujano, B., & Shahin, A.J. (2021). Rethinking the mechanisms underlying the McGurk illusion. (Published).
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Awards

Neurophysiological time course of timbre-induced melodic perception (2023)

Selected by the American Physiological Society for a distinction in scholarship

Talks & Posters

1. **Gonzales, M.**, Backer, K., Balasubramaniam, R. (2025). Seeing Music. Presented at the CIS Brownbag Graduate Student Seminar. University of California, Merced. Merced, California.
2. **Gonzales, M.**, Backer, K., Lee, H., Bortfeld, H., Shahin, A. (2024). The Neurophysiology of Virtual Melody. Poster presentation at the annual Society for Neuroscience (SFN) conference. Chicago, Illinois.
3. Shahin, A., **Gonzales, M.**, Dimitrijevic, A. (2024). Tinnitus Severity as a Function of Multisensory Input. Poster presentation at the annual Society for Neuroscience (SFN) conference. Chicago, Illinois.
4. Servande, M., Jadhav, R., Nandi, S., Gundamaraju, B., **Gonzales, M.**, Bortfeld, H., Spivey, M., Backer, K., Shahin, A. (2024). Implication of the Time-Flow Illusion on Speech-in-Noise Comprehension. Poster presentation at the Center for Interdisciplinary Neuroscience (CIN) Symposium. University of California, Merced. Merced, California.
5. Gundamaraju, B., **Gonzales, M.**, Holm, A., Backer, K., Shahin, A. (2024). Effects of Music Key on Focus and Attention. Poster presentation at the Center for Interdisciplinary Neuroscience (CIN) Symposium. University of California, Merced. Merced, California.
6. Backer, K., **Gonzales, M.**, Santoyo, A., Shahin, A. (2024). Music Perception Induced by Illusory Sounds. Presented to the Bortfeld/CANLab. University of California, Merced. Merced, California.

7. Nandi, S., Gundamaraju, B., **Gonzales, M.**, Backer, K., Bortfeld, H., Shahin, A. (2023). Implication of the Time-Flow Illusion on Speech-in-Noise Comprehension. Poster presentation at the annual Psychonomic Society conference. San Francisco, California.
 8. **Gonzales, M.**, Backer, K., Shahin, A. (2023). Neural Mechanisms Underlying the Time-Flow Illusion. Poster presentation at the annual Society for Neuroscience (SFN) conference. Washington DC.
 9. **Gonzales, M.**, Backer, K., Shahin, A. (2022). Neural Mechanisms Underlying the Time-Flow Illusion. Poster presentation at the 14th annual Society for the Neurobiology of Language conference. Philadelphia, PA.
 10. **Gonzales, M.**, Backer, K., Shahin, A. (2022). The neural mechanisms underlying the audiovisual time-flow illusion. Presented at the CIS Second Year Talks. University of California, Merced. Merced, California.
 11. Santoyo, A., **Gonzales, M.**, Iqbal, Z., Bortfeld, H., Balasubramaniam, R., Backer, K.C., Shahin, A.J. (2022). Neural Encoding of Melody to Pitch Less Sounds. Poster presentation at the Society for Neuroscience (SFN) conference. San Diego, CA, United States.
 12. Santoyo, A., **Gonzales, M.**, Iqbal, Z., Bortfeld, H., Balasubramaniam, R., Backer, K.C., Shahin, A.J. (2022). Neurophysiological Mechanisms of Melody Encoding for Pitch-Less Sounds. Poster presentation at the annual Psychonomic Society conference. Boston, MA, United States.
 13. **Gonzales, M.**, Backer, K., Yan, Y., Miller, L., Bortfeld, H., Shahin, A. (2022). Audition controls the flow of visual time during multisensory perception. Presented to the Bortfeld/CANLab, University of California, Merced. Merced, California.
 14. **Gonzales, M.** (2021). What you see is what you hear (by Shams) – an overview. Presented to the Bortfeld/CANLab, University of California, Merced. Merced, CA.
 15. **Gonzales, M.**, Backer, K., Mandujano, B., Shahin, A. (2021). Rethinking the Mechanisms Underlying the McGurk Illusion. Presented at the CIS Brownbag Graduate Student Seminar. University of California, Merced. Merced, California.
 16. **Gonzales, M.** (2021). The Influence of Task-Irrelevant Music on Language Processing: Syntactic and Semantic Structures (by Hoch et. al.) - an overview. Presented to the Bortfeld/CANLab, University of California, Merced. Merced, California.
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Languages

Cebuano (native fluency) • English (native fluency) • Tagalog (conversational proficiency)