

# Grethel “Alexandra” Juárez

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## EDUCATION

**Bachelor of Science in Biology and Minor in Biostatistics**

May 2024

Loyola University Chicago

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## RESEARCH EXPERIENCES

### Field Technician Volunteer

May - September 2025

*Investigating Avian Disease Prevalence between Farm and Control Sites*

McGraw Lab, Michigan State University

- Conduct mist-net setup, bird extraction, morphological measurements, banding, disease symptoms observations, cloacal sampling, and blood sampling with ketone and glucose measurements

### Research Assistant – Vocal Development

Sept 2024 - Present

*Analyzing Socially Learned Vocalizations in Zebra Finches*

The Smith-Vidaurre (BIRDS) Lab, Michigan State University

- Manage daily animal husbandry tasks for zebra finches
- Run lab work such as DNA extraction, PCR, and gel electrophoresis
- Record bird vocalizations and analyze them on Raven to identify socially learned calls
- Troubleshoot technology and develop code for issues, unit tests, and vignettes using R and GitHub
- Mentor undergraduate researchers in the lab

### Research Assistant

Jan 2022 - May 2024

*Evaluating Sexual Dimorphism in Spotted Sandpipers*

Lipshutz Lab, Loyola University Chicago

- Ran lab work, including DNA extraction, PCR, and gel electrophoresis
- Statistically analyzed sex differences in morphology by generating figures with RStudio
- Recorded bird vocalizations with Marantz and AudioMoths, later analyzed in Raven

### Field Technician

May - July 2022

Undergraduate Summer Research Program, Loyola University Chicago + UC Davis

- Conducted mist-net setup, morphological measurements, banding, blood sampling, radio telemetry, nest monitoring, and acoustic recording
  - Hiked 3-5 miles daily at ~6,400 ft elevation, carrying field gear in the Mono Basin, CA
  - Optimized daily field data entry in Excel
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## MANUSCRIPT IN SUBMISSION

1. Coppinger, B.A., Eckhardt, S.G., Cross, A.†, Samman, R.†, **Juárez, G.A.†**, Ferdinand, V.\*, Smith-Vidaurre, G.\*. Sonifying character strings into synthetic vocal identity signals and testing identity information detection. Submitted. †equal contributions \*co-senior authors
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## ACADEMIC AND FIELD SKILLS

- Software experience with Excel/Word/PowerPoint, Canva, R Studio, Raven, BORIS, and GitHub
- Mist netting, Radio Telemetry, Marantz Recording

## RELEVANT COURSEWORK

- Ecology, Evolution, Evolutionary Medicine, Infectious Diseases in Wildlife
  - General Biology, Genetics, Cell Biology, Anatomy & Physiology, Introduction to Research
  - Introductory Biostatistics, Advanced Biostatistics, Linear Regression (based on R)
  - Inorganic Chemistry, Organic Chemistry, Biochemistry, Physics I and II
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## RELEVANT EXPERIENCES

<b>Conference Volunteer</b> , American Ornithology Society	1 Oct - 5 Oct 2024
• Prepared technology for moderators and speakers during oral presentation sessions	
<b>Treasurer/Founder</b> , Latin Music Ensemble, Loyola University Chicago	Jan 2023 - May 2024
• Coached and performed Latin music to promote and celebrate diversity on campus	
<b>Spanish Interpreter</b> , CommunityHealth Free Clinic	Apr 2022 - May 2024
• Interpreted conversations between patients and doctors	
<b>Lead Singer/Vocal Instructor</b> , Patches & Albo	Apr 2022 - Present
• Direct rehearsals and performances as the frontman, and conceptualizing setlists	
• Guide students (of all ages) in singing and performance techniques	
<b>President/Founder</b> , Care-olers	Jan 2022 - May 2024
• Developed and performed music for the Lakefront Nursing and Rehabilitation Center	
<b>Treasurer/Secretary</b> , Mujeres en Medicina, Loyola University Chicago	Jan 2022 - May 2024
• Mentored womxn pursuing a healthcare career and provided a supportive community	
<b>Medical Assistant</b> , Milwaukee Avenue Doctor's Office	Dec 2021 - May 2024
• Examined and recorded patient vitals before the doctor's visit	
<b>Shadowing Student</b> , Loyola University Medical Center	Nov 2020 - 2021
• Observed the Director of the Anesthesiology Department's daily work activities	
<b>Students Together Are Reaching Success (STARS) Mentor</b> , Loyola University Chicago	Aug 2020 - May 2024
• Mentored incoming freshman through their transition to college	
<b>Licensed Real Estate Broker</b> , Bright Future Realty Inc.	July 2020 - May 2023
• Negotiated prices of real estate property and scheduled property showings	

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## AWARDS AND HONORS (Total \$11,500)

- Building Community Bridges Scholarship, Loyola, 2023 (\$1000)
  - The Animal Behavior Society Charles H. Turner Award, 2023
  - Biology Summer Research Fellowship Program, Loyola, 2023 (\$3000)
  - Mulcahy Scholarship, Loyola University Chicago, 2022 & 2023 (\$2000)
  - STARS Mentor Scholarship, Loyola University Chicago, 2022 & 2023 (\$3000)
  - College of Arts and Sciences Summer Research Experience, Loyola, 2022 (\$2500)
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## CONFERENCE PRESENTATIONS

**GA Juárez**, T Patton, Q Thomas, J Schaefer, SE Lipshutz. When females compete and males care: Phenotypic differences in the spotted sandpiper.

- American Ornithology Society. Estes Park, CO. October 2024.
- Animal Behavior Society. Portland, OR. July 2023.
- Loyola Undergraduate Research and Engagement Symposium. April 2023.
- Chicago Area Undergraduate Research Symposium. Robert H. Lurie Research Center. March 2023.