

Shea E. Duarte

Graduate Student, UC Davis Center for Mind & Brain

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Education

Ph.D. in Psychology

Expected 2024

University of California, Davis
Area: Perception, Cognition, & Cognitive Neuroscience
Advisor: Joy Geng, Ph.D.

B.A. Psychology

2015–2018

California State Polytechnic University, Pomona
Summa Cum Laude
Valedictorian, College of Letters, Arts, & Social Sciences

Additional Education & Training

Ronald E. McNair Post Baccalaureate Achievement Program

2017–2018

California State Polytechnic University, Pomona

Summer Research Opportunity Program (SROP)

Summer 2018

Purdue University
Office of Graduate Diversity Initiatives

Lisbon, Portugal Language & Culture Study Abroad Program

Summer 2017

Universidade Nova de Lisboa
CIEE Study Abroad

Research Experience

University of California, Davis

Integrated Attention Lab

2019–present

Principal Investigator: Dr. Joy Geng

Research focus: Using behavioral experiments, virtual reality, and computational methods to better understand the contribution of semantic associations to multisensory object representation at the levels of perception, attention, and memory. Experiments conducted using **2D psychophysical tasks** and **Eyelink 1000 eyetracking**, and **Virtual Reality (VR)** using the **HTC Vive** head-mounted display, **Unity** game engine, **C#**, and **Tobii eyetracking**. Current VR experiments can be seen on our lab website: <http://genglab.ucdavis.edu/photos.html>

California State Polytechnic University, Pomona

Psycholinguistics Lab

2017–2018

Principal Investigator: Dr. Eleonora Rossi

Undergraduate research assistant, used **electroencephalography (EEG)** and analysis of **even-related potentials (ERPs)** to investigate the neural activity associated with pronoun processing in bilingual, heritage language speakers of Spanish. Duties included EEG data collection and analysis of ERPs.

Purdue University

Purdue Applied Cognition Lab

Summer 2018

Principal Investigator: Dr. Thomas Redick

Visiting scholar, conducted a behavioral experiment investigating the use of spontaneous eyeblink rate as a proxy measure of dopamine function in the basal ganglia using **Eyelink 1000 Plus eyetracking** and working memory tasks. Also involved in a **meta-analytic review** of visuospatial working memory tasks.

California State Polytechnic University, Pomona

Brain Networks Lab

2017–2019

Principal Investigator: Dr. Robert Blumenfeld

Undergraduate research assistant, involved in a **meta-analytic connectivity mapping study** investigating the prefrontal-temporal interactions underlying successful long-term memory encoding using network models. Involved in collecting data from the BrainMap database, analyzing and modeling large datasets using **Python**.

California State Polytechnic University, Pomona

Mental Processes Lab

2016–2019

Principal Investigator: Dr. Kevin Autry

Undergraduate research assistant, involved in multiple **behavioral** and **EEG/ERP** studies focused on the cognitive and neural processes implicated in correcting misinformation. Also involved in projects focused on understanding conceptual metaphors such as the mental timeline using linguistic and nonlinguistic cultural artifacts. For the latter projects, I created a video game with a right and leftward moving manipulation, which can be found on GitHub.

Conference Presentations

Huerta, J., **Duarte, S. E.**, & Geng, J. (2020). Visual priors for object identity modulate the auditory capture of visual attention. Poster presented at the Undergraduate Research, Scholarship and Creative Activities Conference at the University of California, Davis.

Rossi, E., Lewis, K., Cotter, B. T., & **Duarte, S. E.** (2019). Clitic Pronoun Processing in Heritage Bilingual Speakers of English and Spanish. Poster presented at the ninety-ninth annual convention of the Western Psychological Association in Pasadena, California.

Autry, K. S., **Duarte, S. E.**, & Aguirre, C. (2018). Correcting misinformation: Can negative corrections increase belief? Poster presented at the fifty-ninth annual meeting of the Psychonomic Society in New Orleans, Louisiana.

Blumenfeld, R. S., **Duarte, S. E.**, & Cheng, K. (2018). Prefrontal-temporal interactions underlie successful long-term memory encoding: A meta-analytic functional co-activation mapping study. Poster presented at the forty-eighth annual meeting for the Society for Neuroscience in San Diego, California.

Duarte, S. E. & Redick, T. S., (2018). Working memory & spontaneous eyeblink rate: Evidence for eyeblink rate as a proxy measure of dopamine function. Poster presentation at the SROP & LSAMP Poster Exhibition at Purdue University in West Lafayette, Indiana.

Duarte, S. E. & Redick, T. S., (2018). Working memory & spontaneous eyeblink rate: Evidence for eyeblink rate as a proxy measure of dopamine function. Oral presentation at the SROP Oral Presentations at Purdue University in West Lafayette, Indiana.

- Duarte, S. E.** & Autry, K. S. (2018). The competing effects of preexisting beliefs and warnings on the processing of misinformation. Oral presentation at the 19th annual Cal Poly Pomona McNair Scholars Symposium in Pomona, California.
- Autry, K. S. & **Duarte, S. E.** (2018). The effect of negation on the correction of misinformation. Poster presented at the ninety-eighth annual convention of the Western Psychological Association in Portland, Oregon.
- Cheng, K., **Duarte, S. E.**, & Blumenfeld, R. S. (2018). Neuroimaging meta-analysis of long term memory encoding and retrieval. Poster presented at the ninety-eighth annual convention of the Western Psychological Association in Portland, Oregon.
- Duarte, S. E.** & Autry, K. S. (2018). The competing effects of preexisting beliefs and warnings on the processing of misinformation. Oral presentation at the 9th annual Lowell-Overton Undergraduate Symposium in Pomona, California.
- Cheng, K., **Duarte, S. E.**, & Blumenfeld, R. S. (2018). Neuroimaging meta-analysis of long term memory encoding and retrieval. Poster presented at the 2018 annual Research, Scholarships & Creative Activities Conference (RSCA) in Pomona, California.
- Autry, K. S., **Duarte, S. E.**, & Aguirre, C. (2017). The role of eye-movements in the orientation of the mental timeline. Poster presented at the 2017 annual meeting of the Southern California Conferences for Undergraduate Research (SCCUR) in Pomona, California.

Publications

- Autry, K. S. & Duarte, S. E. (In Revision, Journal of Applied Cognitive Psychology). Correcting the unknown: Negative corrections may increase belief in misinformation.

Undergraduate Students Mentored

- Philosophy: I aim to provide quality research mentoring to undergraduates, particularly those from underrepresented groups in psychology in order to foster increased diversity in the field.
- **Jocelyn Huerta**, McNair Scholar
 - **Karan Gupta**
 - **Tara Sharifi**
 - **Asrar Alkrizy**

Programming Skills

- **Python:** Data analysis and visualization, psychophysical stimulus presentation, image and sound editing
- **R:** Data analysis and visualization
- **C#:** Used alongside Unity for stimulus presentation on the HTC Vive head-mounted display and for 2D computer-based stimuli

Scholarships and Awards

- Eugene Cota-Robles Fellowship
University of California, Davis
Competitive 2-year fellowship offered by the university Provost to support graduate students who have overcome barriers to education and who exhibit commitment to supporting students from underrepresented backgrounds through a career in teaching and research

Awarded 2019
- Julian A. McPhee Outstanding Student Scholar Award,
Cal Poly Pomona College of Letters, Arts, and Social Sciences
Awarded by the university president to one student from the college for exhibiting academic excellence

Awarded 2019
- Cal Poly Pomona Psychology Department Outstanding Graduating Senior

Awarded 2019
- Office of Undergraduate Research Conference Presentation Scholarship

Awarded 2018
- Honoree for Excellence in Research
Lowell-Overton Undergraduate Symposium, Cal Poly Pomona

Awarded 2018
- President's List, Cal Poly Pomona

2016 –2018
- Ronald E. McNair Scholar Travel Grant

Awarded 2018
- CIEE Global Access Study Abroad Grant

Awarded 2017

Service

- RepliCATS COVID Claims Assessment Workshop
Assessed statistical and methodological claims made by scientific journal articles as part of a program dedicated to improving the replicability of research.

2020
- Letters to a Pre-scientist
Scientist-to-elementary school student pen pal program.

2020
- UC Davis Psychology Department Diversity, Equity, and Inclusion (DEI) Committee
Area representative, initiative intended to improve department climate for BIPOC and underrepresented graduate and undergraduate students in the department.

Current
- Psychology Department Graduate Committee for Diversity Fellowship Development
Served on a committee of graduate students and faculty to develop a diversity based fellowship that awards graduate students quarterly supplemental funding for their work mentoring BIPOC/ underrepresented undergraduate research assistants

2020
- Psychology Graduate Student Association at UC Davis
Financial Officer

2019–Present
- Brain Awareness Week Committee Member, Cal Poly Pomona
Helped organize a field trip for over 300 children to Cal Poly Pomona to learn about neuroscience and brain health

2018
- Psychology/Sociology Peer Mentors: ACCESS Club, President
This organization held student-led office hours and workshops aimed at helping students from non-traditional backgrounds navigate academic obstacles.

2017–2018
- International Honor Society in Psychology, Psi Chi
Chapter executive board member, Historian

2017–2018