Sebastian Lopez - Cognitive and Brain Sciences PhD Student

Email: slopez4@unr.edu (**Organization)** | seblopezcontact@gmail.com (**Personal)** |
Phone: (530) 231-2709 | LinkedIn Profile (http://www.linkedin.com/in/sebastian-lopez-neuro)

EDUCATION

University of Nevada, Reno (UNR) | 2026 – 2031 (Expected Graduation)

- *Advisors:* Dr. Marian Berryhill & Dr. Sarah Haigh
- PhD in Cognitive and Brain Sciences

University of California, Davis | June 2024

- Bachelor of Science in Cognitive Science (Focus: Neuroscience)

RESEARCH EXPERIENCE

Memory and Brain Lab, University of Nevada, Reno | 2026 - Present *Graduate Researcher* | *PI: Dr. Marian Berryhill*

- Investigate the transition from raw sensory input to stable memory representations utilizing temporally precise multivariate electroencephalogram (EEG).
- Evaluate cognitive flexibility and attentional access using Abstract Cognitive Task Sequences (ACTS) and high-throughput behavioral assessments.

Haigh Lab, University of Nevada, Reno | 2026 - Present *Graduate Researcher* | *PI: Dr. Sarah Haigh*

- Investigate physiological biomarkers of hyper-excitability in migraine populations using high-density EEG and electroretinography (ERG).
- Examine the compounding behavioral and physiological costs of visual discomfort using pupillometry and modified Stroop paradigms.

Luck Lab (Laboratory for Basic and Translational Cognitive Neuroscience) | Sept 2021 – 2025 | *Junior Specialist (2021-2024) / Research Assistant (2024-2025)* | *PI: Steven J. Luck*

- Managed large-scale EEG studies on visual attention dynamics, directing all phases from custom MATLAB protocol design to advanced statistical data processing.
- Trained and mentored junior research assistants in end-to-end experimental workflows, including EEG acquisition, participant recruitment, and data analysis.

DataLab | July 2021 – August 2024 | *Student Intern* | *Supervisor: Dr. Michele M. Tobias*

- Cleaned and analyzed diverse datasets specializing in geospatial and public health data.
- Contributed to high-profile projects, including the Covid Worksite Exposure Map.

TEACHING & MENTORSHIP EXPERIENCE

Luck Lab, UC Davis | Sept 2021 - 2025 *Research Mentor*

- Trained and mentored junior research assistants in EEG acquisition, participant recruitment, and data analysis.

Biology Undergraduate Scholars Program (BUSP) | Sept 2023 - June 2024 *Peer Mentor*

- Guided four freshmen from underrepresented backgrounds through college transitions, academic development, and integration into research environments.

Cognitive Science Student Association (CSSA) | Sept 2022 - June 2023 *Projects Lead*

- Organized collaborative projects and delivered targeted, inquiry-based workshops on experimental design and research tools (MATLAB, SQL).

PUBLICATIONS & PRESENTATIONS

- Simmons, A. M., **Lopez, S.**, & Luck, S. J. (**Expected 2026**). Decoding Attention Timing Effects: The Effects of Color-Based Attention on the Extraction of Decodable Information About Object Identity.
    - **Lopez, S.**, Luck, S. J., & Simmons, A. M. (2024). Decoding Attention Timing Effects: The Effects of Color-Based Attention on the Extraction of Decodable Information About Object Identity.(**Senior Thesis)**
- **Lopez, S**., & Luck, S. J. (**Expected 2026**). Decoding the Attentional Blink: Exploring the Timing Limitations of Visual Memory.
- **Lopez, S.**, Luck, S. J., Simmons, A. M., & Winsler, K. (2022). Decoding of Attended and Unattended Letters from Neural Signals. **Poster and Oral Presentation**, presented at:
    - EEOP Summer Symposium 2022, University of California-Davis.(Poster)
    - ABRCMS 2022, Anaheim, CA. (**Poster**)
    - URSCA 2023, University of California-Davis.(**Poster**)
    - EEOP Summer Symposium 2023, University of California-Davis.(**Poster**)
    - SfN 2023, Washington, DC. (**Poster**)
    - URSCA 2024, University of California-Davis. (**Oral Presentation**)

TECHNICAL SKILLS

- **Programming:** Proficient in MATLAB (experiment scripting/analysis), Python, R, SQL, and HTML.
- **Neuroscience Tools:** Advanced expertise in EEG acquisition, preprocessing, and statistical analysis.
- **Experimental Design:** Experienced in eye-tracking methodologies and cognitive neuroscience experimental design.
- **Software:** Experienced with GitHub, QGIS, and Notion for data management and visualization.
- **Languages:** English (Native Proficiency), Spanish (Native Proficiency)

HONORS & AWARDS

- **NEI Diversity Supplement Recipient:** Awarded via NIH R01 grant (3R01EY033329-03S1) to support research on attention and cognition.
- **ABRCMS 2022 Presentation Award:** Recognized for outstanding research presentation on decoding neural signals.
- **James and Leta Fulmor Scholarship (2020-2024):** Awarded for academic excellence.

SERVICE & ORGANIZATIONS

UC Davis Advancing Diversity in Neuroscience Research-Honors (ADNR-Honors) | June 2022 – June 2024

- Conducted 10–40 hours of research weekly and participated in professional development workshops.

Whole Earth Festival | 2022 – 2024

- *Volunteer & Coordinator:* Managed event logistics, food distribution, and scheduling for a volunteer team serving an event with over 10,000 attendees across three consecutive years.

Fruit and Veggie Up! | September 2021- June 2022

- *Volunteer:Assisted in inventory management and distribution processes, contributing to the program's operational efficiency.*

PROFESSIONAL MEMBERSHIPS

- SACNAS (2023 –2024)
- Society for Neuroscience (2023-2024)