

EDUCATION

Ph.D. Psychology, University of California, Davis	August 2024
M.A. Psychology, University of California, Davis	December 2021
B.A. Psychology, Cum Laude, Sonoma State University	May 2019
A.A. Psychology, with Honors, Cosumnes River College	May 2017
A.A. Sociology, with Honors, Cosumnes River College	May 2017

RESEARCH EXPERIENCE

Laboratory for the Neural Mechanisms of Attention, UC Davis, CA <i>Cognitive neuroscience research, EEG/fMRI lab</i>	July 2019 – Present
Postdoctoral Scholar (9/2024-Present)	
Leading a team of researchers to conduct cognitive neuroscience studies using simultaneous EEG/fMRI/eye-tracking to investigate the neural correlates of attention and free will.	
Graduate Student Researcher (7/2019-9/2024)	
Worked with Dr. George Ron Mangun utilizing electroencephalography and eye-tracking to investigate visual attention.	
Bengson Laboratory, Sonoma State University, CA <i>Cognitive neuroscience research, EEG lab</i>	2018 – 2019
Research Assistant	
Conducted data analysis and assisted with data collection in an electroencephalogram laboratory.	

GRANTS AND FELLOWSHIPS

NSF BCS 2318886 (P.I., Mangun, G.R.) “Mechanisms of Willed Attention” Role: Postdoctoral Scholar	2023-2026
NEI T32 EY015387 (P.I., Burns, M.) “Training Program in Vision Science” Role: Trainee	2022-2024
NIMH R01 MH117991 (P.I., Mangun, G.R.) "Mechanisms of attentional control: Structure and dynamics from simultaneous EEG-fMRI and machine learning" Role: Graduate Student Researcher	2019-2022

HONORS AND AWARDS

Dukes Travel Award, University of California, Davis	2024
Trainee Professional Development Award, Society for Neuroscience	2023
Michael S. Gazzaniga Prize, UC Davis Center for Mind and Brain	2023
Psychology Department Best Poster Award, University of California, Davis	2023
Graduate Student Association Travel Award, University of California, Davis	2023
Early Career Scientist Travel Grant, National Eye Institute	2023
Psychology Diverse Mentoring Initiative Award, University of California, Davis	2021-2024
Dukes Travel Award, University of California, Davis	2021
Student Research Award, Sonoma State University	2018-2019
School of Social Sciences Student Travel Award, Sonoma State University	2018-2019

PUBLICATIONS

- Nadra, J. G., & Mangun, G. R. (2023).** Placing willed attention in context: A review of attention and free will. *Frontiers in Cognition*, 2. doi: 10.3389/fcogn.2023.1205618.
- Nadra, J. G., Bengson, J. J., Morales, A. B., & Mangun, G. R. (2023).** Attention Without Constraint: Alpha Lateralization in Uncued Willed Attention. *eNeuro*, 10(6):ENEURO.0258-22.2023. doi: 10.1523/ENEURO.0258-22.2023. PMID: 37236786
- Nadra, J., Bengson, J., Ding, M., & Mangun, G.R. (in progress).** Neural Mechanisms of Willed Attention in Overt Visual Search. This manuscript will describe a completed EEG and eye tracking experiment that extends our studies of covert willed attention to overt willed attention by investigating the antecedent neural activity that predicts initial saccade direction during visual search.
- Nadra, J., Ding, M., & Mangun, G. R. (in progress).** Volitional attention to color: breaking willed attention out of the spatial domain. This report will describe our EEG findings of the neural correlates of willed attention to non-spatial stimulus features, specifically, color. The goal of the research is to understand whether and how willed attention may differ during spatial versus non-spatial attention.

CONFERENCE PRESENTATIONS

- Hutchins, A., **Nadra, J.**, Bengson, J., Ding, M., & Mangun, G. (2024, May). Overt willed attention: Decoding EEG to predict saccades. Poster presentation. Psychology Spring Conference at UC Davis, Davis, CA.
- Sullivan, G., **Nadra, J.**, Ding, M., & Mangun, G. (2024, May). Analyzing Event Related Potentials in Color-Based Attention: An Examination of the Attention Validity Effect. Poster presentation. Psychology Spring Conference at UC Davis, Davis, CA.
- Nadra, J.**, Bengson, J., Ding, M., & Mangun, G. (2024, April). Decoding EEG Correlates of Willed Overt Attention During Visual Search. Poster presentation. Cognitive Neuroscience Society Annual Meeting, Toronto, Canada.
- Nadra, J.**, Ding, M., & Mangun, G. (2023, November). Does volitional attention operate the same across domains? An investigation of willed attention to color. Poster presentation. Neuroscience 2023, Washington D.C.
- Nadra, J.**, Bengson, J., Ding, M., & Mangun, G. (2023, May). Predicting a Volitional Eye Movement Before a Visual Search: An Investigation of Overt Willed Attention. Poster presentation. Vision Sciences Society Annual Meeting, St. Pete's Beach, FL.
- Nadra, J.**, Ding, M., & Mangun, G. (2023, March). The Neural Mechanisms of Color Willed Attention. Poster presentation. Cognitive Neuroscience Society Annual Meeting, San Francisco, CA.
- Nadra, J.**, Bengson, J., Ding, M., & Mangun, G. (2022, April). Neural Mechanisms of Willed Attention in Overt Visual Search. Poster presentation. Cognitive Neuroscience Society Annual Meeting, San Francisco, CA.
- Nadra, J.**, Bengson, J., Ding, M., & Mangun, G. (2021, May). Tracking the Onset of Willed Attention: EEG, Alpha Oscillations & Machine Learning. Poster presentation. Association for Psychological Science Annual Meeting, Virtual.
- Nadra, J.**, Mittal, A., Bengson, J. & Mangun, G. (2020, May). Mechanisms of overt attention in visual search: Eye tracking, hemifield bias and willed attention. Poster presentation. Cognitive Neuroscience Society Annual Meeting, Virtual.
- Nadra, J.**, Holm, A., Falk, R., Liu, D. & Bengson, J.J. (2019, January). Inference of willed attentional focus via local field potentials in humans. Poster presentation. California State University Annual Biotechnology Symposium at Hyatt Regency Orange County, Garden Grove, California.
- Nadra, J.**, Holm, A., Falk, R. & Bengson, J.J. (2018, November). Predicting Where You Will Attend: The Neural Circuitry of Decision Driven Attention. Poster presentation. Southern California Conferences for Undergraduate Research at Pasadena City College, Pasadena, California.

TEACHING

Instructor:

Perception (Psychology 131)	Winter 2024
Perception (Psychology 131)	Fall 2024
Introduction to Cognitive Neuroscience (Psychology 130; co-taught with Dr. George R. Mangun)	Winter 2022

Teaching Assistant:

Human Memory (Psychology 130)	Spring 2022
Introduction to Cognitive Neuroscience (Psychology 135)	Winter 2022
Introduction to Cognitive Neuroscience (Psychology 135)	Winter 2021
Introduction to Cognitive Neuroscience (Psychology 135)	Winter 2020
Health Psychology (Psychology 126)	Fall 2020
Human Memory (Psychology 130)	Fall 2019

SERVICE AND VOLUNTEER EXPERIENCE

Invited Reviewer, IEEE Transactions on Neural Systems & Rehabilitation Engineering	2024
Invited Reviewer, Brain Research	2023
Marketing Lead, 2022 Games User Research Summit	2022
Invited Reviewer, European Journal of Neuroscience	2021
EEG Laboratory Demonstration, AvenueB, University of California, Davis	2021
Brain Computer Interface Demonstration, Hanna Boys Center for At-Risk Youth	2019