Curriculum Vitae

Sean Li Ming Noah

January 5, 2026

Professional Positions

Assistant Professor of Cognitive Neuroscience　　　　　　　　　　2026 – Present
Department of Psychology and Child Development
California Polytechnic University, San Luis Obispo

Lecturer　　　　　　　　　　　　　　　　　　　　　　　　　　2023
Department of Psychology
University of California, Davis

Postdoctoral Researcher　　　　　　　　　　　　　　　　　　2021 – 2026
Advisor: Michael Silver
UC Berkeley Center for the Science of Psychedelics
Helen Wills Neuroscience Institute
Department of Neuroscience
University of California, Berkeley

Education

Ph.D. in Psychology　　　　　　　　　　　　　　　　　　　　2017 – 2021
Cognitive Neuroscience concentration
Advisor: George R. Mangun
Dissertation: The Neural Mechanisms of Visual Attention
University of California, Davis

Bachelor of Arts with majors in Cognitive Science　　　　　　　2009 – 2013
and Molecular and Cellular Biology (Neurobiology concentration)
University of California, Berkeley

Grant Activity

NIMH R01 MH117991 (P.I., Mangun, G.R.; Joint P.I., Ding, M.) "Mechanisms of attentional control: Structure and dynamics from simultaneous EEG-fMRI and machine learning" 2018 – 2025. This grant used simultaneous EEG and fMRI recordings, advanced signal processing, and machine learning to investigate the fine structure of attentional control in humans.
Role: Graduate Researcher. Designed experiment and collected pilot data for Aim 3 of grant application. Collected and developed novel analytic pipeline for Aim 3 research, leading to publications: Noah et al. 2020, 2022, 2023, and 2025 (under review).

NIA R01 AG067073 (P.I., Metherate, R.; Joint P.I., Razak, K.; Joint P.I., Silver, M.; Joint P.I., Zeng, F.) "Using nicotine to reverse age-related auditory processing deficits" 2021 – 2025. This grant examines the effect of acute and chronic nicotine administration on responses of auditory neurons in mouse models and humans.

Role: Postdoctoral Researcher. Collecting and analyzing pharmacology fMRI data for Aim 3 research. Assembling bi-annual multi-site safety monitoring board reports. Writing grant renewal application materials for human fMRI experiments.

Journal Articles

DallaVecchia A, Zink N, O'Connell S, Betts S, **Noah S**, Hillberg A, McCracken J, Reid R, Bookheimer S, Cohen MS, Oliva M, Simpson G, Karalunas S, Calhoun V, Lenartowicz A. Beyond Neural Noise: Critical Dynamics Explain Reaction-Time Variability in Adults. In submission.

Bressler D, **Noah S**, Lu A, Silver M. Double dissociation of the effects of volitional control on perceptual selection and maintenance in multistable visual perception. Under review at *Journal of Vision*.

Noah S, Meyyappan S, Ding M, Mangun GR. Rhythmic Sampling and Competition of Target and Distractor Representations in Visual Sensory Memory. Under review at *Cerebral Cortex*. DOI: https://doi.org/10.31234/osf.io/eyd6u

Zink N, O'Connell S, Betts S, **Noah S**, Hilberg A, McCracken J, Reid R, Bookheimer S, Cohen MS, Klein S, Oliva M, Simpson G, Lenartowicz A. Selective attention dynamics in adults with ADHD: A role for sensory processing asymmetry? Under review at *Biological Psychiatry: Global Open Science.*

Privitera C, **Noah S**, Carney T, Klein S, Lenartowicz A, Hinshaw S, McCracken J, Nigg J, Karalunas S, Oliva M, Betts S, Simpson G (2025) Pupillary unrest is attenuated in Attention Deficit Hyperactivity Disorder (ADHD). *Neuroscience Letters*. DOI: https://doi.org/10.1016/j.neulet.2025.138148

Noah S, Shen M, Erowid E, Erowid F, Silver M (2025) A Novel Method for Quantitative Analysis of Subjective Experience Reports: Application to Psychedelic Visual Experiences. *Frontiers in Psychology*. DOI: https://doi.org/10.3389/fpsyg.2024.1397064

Privitera C, **Noah S**, Carney T, Klein S, Lenartowicz A, Hinshaw S, McCracken J, Nigg J, Karalunas S, Oliva M, Betts S, Simpson G (2024) Pupillary dilations in a Target/Distractor visual task paradigm and Attention Deficit Hyperactivity Disorder (ADHD). *Neuroscience Letters* (818). DOI: https://doi.org/10.1016/j.neulet.2023.137556

Noah S, Meyyappan S, Ding M, Mangun GR (2023) Time courses of attended and ignored object representations. *Journal of Cognitive Neuroscience* 35 (4): 645–658. DOI: https://doi.org/10.1162/jocn_a_01972

Noah S, Meyyappan S, Ding M, Mangun GR (2022) Anticipatory attention is a stable state induced by transient control mechanisms. *Frontiers in Human Neuroscience.* 16:965689. DOI: https://doi.org/10.3389/fnhum.2022.965689

Noah S, Powell T, Khodayari N, Olivan D, Ding M, Mangun GR (2020) Neural Mechanisms of Attentional Control for Objects: Decoding EEG Alpha when Anticipating Faces, Scenes, and Tools. *Journal of Neuroscience* 40(25) 4913-4924. DOI: https://doi.org/10.1523/JNEUROSCI.2685-19.2020

Povazan M… **Noah** S… Edden RAE (2020) Comparison of multi-vendor, single-voxel MR spectroscopy data acquired in healthy brain at 26 sites. *Radiology* 00:1–10. DOI: https://doi.org/10.1148/radiol.2020191037

Noah S, Mangun GR. (2020) Recent Evidence that Attention is Necessary, but Not Sufficient, for Conscious Perception. *Annals of the New York Academy of Sciences*. 1464(1):52-63. DOI: https://doi.org/10.1111/nyas.14030

Mikkelsen M… **Noah S**… Edden RAE. (2019) Big GABA II: Water-Referenced Edited MR Spectroscopy at 25 Research Sites. *Neuroimage* May 1;191:537-548. DOI: https://doi.org/10.1016/j.neuroimage.2019.02.059

Mikkelsen M… **Noah S**… Edden RAE. (2017) Big GABA: Edited MR Spectroscopy at 24 Research Sites. *Neuroimage* 159:32-45. DOI: https://doi.org/10.1016/j.neuroimage.2017.07.021

Greenhouse I, King M, **Noah S**, Maddock RJ, Ivry RB. (2017) Individual differences in resting cortico-spinal excitability are correlated with reaction time and GABA content in motor cortex. *Journal of Neuroscience* 37(10):2686-2696. DOI: https://doi.org/10.1523/JNEUROSCI.3129-16.2017

Greenhouse I, **Noah S**, Maddock RJ, Ivry RB. (2016) Individual differences in GABA content are reliable but are not uniform across the human cortex. *Neuroimage* 139:1-7. DOI: https://doi.org/10.1016/j.neuroimage.2016.06.007

Colloquia, Conference, and Invited Talks

Investigating the Active Processes Underlying Conscious Perception
California Polytechnic University, San Luis Obispo. October 2025

Deriving a Taxonomy of Psychedelic Visual Experiences from Erowid Psychoactive Substance Experience Reports
Psychedelic Archives Project Weekly Meeting, Johns Hopkins University. March 2025

Studying Psychedelic Visual Effects with Large Language Model-Enabled Analysis of Experience Report Text from Erowid
UC Berkeley Psychedelic Science Seminar Series. September 2024

EEG decoding of object-based attention
UC Santa Cruz Cognitive Forum Meeting. October 2024

Three EEG decoding studies of human object-oriented attention
Department of Psychological & Brain Sciences Joint Lab Meeting, Johns Hopkins University. April 2023

Neural Mechanisms of Attentional Control for Objects: Decoding EEG Alpha when Anticipating Faces, Scenes, and Tools
Neuromatch Conference. October 2020

Neural Mechanisms of Object-Based Attention
UC Davis Center for Vision Science Annual Symposium. January 2020

Conference Posters

Noah S, Silver M. Acute nicotine enhances frequency-selective responses in human auditory cortex of younger but not older adults. Society for Neuroscience annual meeting, November 2025

Noah S, Meyyappan S, Ding M, Mangun GR. Rhythmic Sampling and Competition of Target and Distractor Representations in Visual Sensory Memory. UC Davis Center for Mind and Brain Poster Day, May 2025

Noah S, Erowid E, Erowid F, Silver M. The Prevalence, Varieties, and Determinants of Synesthesia in Psychedelic Experiences. Bay Area Psychedelic Science Symposium, March 2025

Noah S, Shen M, Erowid E, Erowid F, Silver M. Quantitative analysis of subjective experience reports indicates systematic differences in visual effects across psychedelic compounds. Bay Area Vision Research Day, September 2023

Noah S, Meyyappan S, Ding M, Mangun GR. Tracking the Fate of Distracting Visual Stimuli from Decoding of Attended and Ignored Visual Information in EEG. Vision Science Society annual conference, May 2022

Noah S, Meyyappan S, Ding M, Mangun GR. Anticipatory Attention is a Stable State Induced by Transient Control Mechanisms. Cognitive Neuroscience Society annual conference, April 2022

Shen M, **Noah S**, Erowid E, Erowid F, Silver M. Natural Language Processing Analysis of Erowid Drug Experience Reports. California Cognitive Science Conference, April 2022 (Best poster award winner)

Noah S, Powell T, Khodayari N, Olivan D, Ding M, Mangun GR. Neural Mechanisms of Attention to Objects. Cognitive Neuroscience Society virtual conference, May 2020

Noah S, Powell T, Khodayari N, Olivan D, Ding M, Mangun GR. Anticipatory object-based attention modulates EEG alpha activity. Vision Science Society annual conference, May 2019

Noah S, Powell T, Khodayari N, Olivan D, Ding M, Mangun GR. Object-based attention modulates EEG alpha activity. Cognitive Neuroscience Society annual conference, March 2019

Povazan M et al. The use of multi-vendor, multi-site 1H-MRS data acquired at 26 sites as a benchmark for MRS standardization: Comparison of quantification software. International Society for Magnetic Resonance in Medicine annual meeting, April 2019.

Noah S, Powell T, Khodayari N, Olivan D, Mangun GR. Object attention modulates alpha band activity. Annual Mind and Brain Poster Day, Center for Mind and Brain, UC Davis, May 2018

Mikkelsen M et al. Integrative analysis of GABA-edited MRS data acquired at 19 research sites. International Society for Magnetic Resonance in Medicine annual meeting, April 2017.

Lenartowicz A, Simpson G, O'Connell S, **Noah S**, Head A, Bilder R, McCracken J, Bookheimer S, Reid R, Cohen M. New EEG measures reveal infra-slow fluctuations in both attending and ignoring in adults with

ADHD that provide high accuracy in discriminating ADHD from control. Society for Neuroscience annual conference, October 2015.

Greenhouse I, **Noah S**, Maddock R, Ivry R. Individual Differences in Cortical GABA Concentrations and Motor Excitability. Organization for Human Brain Mapping annual conference, June 2015.

Noah S, Bayliss J, Vedamurthy I, Nahum M, Levi D, Bavelier D. Comparing dichoptic action video game play to patching in adults with amblyopia. Vision Science Society annual conference, May 2014.

Teaching and Mentoring

Course as Instructor of Record

PSC135: *Cognitive Neuroscience* (Undergraduate, upper division)
Lecturer (Instructor of Record), Summer Session 2023
Department of Psychology, University of California, Davis

This is a gateway lecture course at UC Davis that surveys cognitive neuroscience. The course includes study of major cognitive functions and their brain bases, and also reviews neuroanatomy, physiology and cognitive neuroscience methods. Students were predominantly majors in Psychology, Neurobiology, and Cognitive Science.

Courses as Teaching Assistant

PSC001: *General Psychology* – UC Davis
PSC135: *Cognitive Neuroscience* – UC Davis
PSC132: *Language and Cognition* – UC Davis

Mentoring (undergraduate research interns and doctoral trainees)

* Indicates students who coauthored peer reviewed papers

India Carter   2025 – present
UC Berkeley Neuroscience Ph.D. student
Project: Design of interocular grouping stimuli for facilitating detection of drug effects

Asha Hurreh   2025 – present
UC Berkeley Optometry student
Project: Effects of repeated task exposure on binocular rivalry dynamics

Leonardo Soffiatti   2025 – present
UC Berkeley Electrical Engineering and Computer Science undergraduate student
Project: Natural language processing analysis of psychedelic subjective effects

Daniel Bazan   2025 – present
UC Berkeley Neuroscience Ph.D. student
Project: The effects of psilocybin on primary and object-selective visual cortical activity

Manav Kumar   2024 – present
UC Berkeley Statistics undergraduate student

Project: Natural language processing analysis of psychedelic subjective effects

Shivani Sahni   2024 – 2025
UC Berkeley Computer Science undergraduate student
Project: Natural language processing analysis of psychedelic emotional effects
Current Affiliation: Software engineer at Apple Inc.

Benjamin Liang   2024 – 2025
UC Berkeley Data Science and Computer Science undergraduate student
Project: Natural language processing analysis of psychedelic visual effects
Current Affiliation: Software engineer at HeyGen Inc.

Samantha Jackson   2023
UC Berkeley Neuroscience Ph.D. student
Project: Neural correlates of bistable image perceptual switches

Corrina Fonseca   2022
UC Berkeley Neuroscience Ph.D. student
Project: Implementing a standardized neuroimaging preprocessing pipeline

*Miranda Shen   2022 – 2025
UC Berkeley Data Science and Psychology undergraduate student
Project: Natural language processing analysis of psychedelic visual effects
Current Affiliation: Harvard University Data Science MS student

Tyler Toueg   2022
UC Berkeley Neuroscience Ph.D. student
Project: Measurement of perceptual switch times with bistable images

Jen Holmberg   2021
UC Berkeley Neuroscience Ph.D. student
Project: Design of binocular rivalry catch trials

Srivatsa Sai Katta   2020 – 2021
UC Davis undergraduate student
Project: Neural mechanisms of object-based attention

*Natalia Khodayari   2018 – 2020
UC Davis undergraduate student
Project: Neural mechanisms of object-based attention
Current Affiliation: Completed Psychology Ph.D. at Johns Hopkins University,
Postdoctoral researcher at UC Davis

*Travis Powell   2018 – 2020
UC Davis undergraduate student
Project: Neural mechanisms of object-based attention
Current Affiliation: UC Davis Psychology Ph.D. student

*Diana Olivan   2018 – 2020
UC Davis undergraduate student
Project: Neural mechanisms of object-based attention
Current Affiliation: AmeriCorps VISTA

Honors and Awards

Research Grant—UC Berkeley Center for the Science of Psychedelics to support Psychedelic Experience Report Natural Language Processing Amount: $6,000 Role: Lead Investigator	2024
National Eye Institute Early Career Scientist Travel Grant Vision Science Society Meeting 2022	2022
Kavli Fellow, Summer Institute in Cognitive Neuroscience	2022
National Eye Institute Traineeship UC Davis Vision Science Training Program (T32)	2019 – 2021
UC Davis Graduate Student Travel Award	2020
Honorable Mention – National Science Foundation Graduate Research Fellowships Program	2019
Travel support scholarship to the NSF-funded Big Data Neurosciences Workshop 2017 in Bloomington, IN	2017

Research Experience

Postdoctoral Researcher PI: Michael Silver, UC Berkeley	2021 – Present
Graduate Student Researcher PI: George R. Mangun, UC Davis	2017 – 2021
Staff Research Associate II Think Now, Inc.	2016 – 2020
Staff Research Associate I Think Now, Inc.	2014 – 2016
Research Assistant PI: Martin Banks, UC Berkeley	2014
Research Assistant PI: Rich Ivry, UC Berkeley	2013 – 2015
Research Assistant PI: Dennis Levi, UC Berkeley	2012 – 2014

Other Affiliations

Graduate Student Affiliate UC Davis Data Science Initiative	2017 – 2021

Scientific Service

    Ad Hoc Reviewer:
       PLOS ONE
       Frontiers in Cognition
       eNeuro
       Journal of Neuroscience
       Journal of Cognitive Neuroscience
       Vision Research
       Attention, Perception, and Psychophysics
       Schizophrenia Bulletin
       Journal of Psychopharmacology

Additional Training

Layer fMRI course at Massachusetts General Hospital	2023
Neuromatch Computational Neuroscience Academy	2020
NIH-funded fMRI training course at University of Michigan	2019

Other Professional Experience

Senior Editor (Volunteer Position) Knowing Neurons	2020 – 2022
Corporate Communications Consultant Red House Communications, LLC.	2015 – 2022
Contributing Editor (Volunteer Position) Knowing Neurons	2017 – 2020
Data Science Intern Sacramento County Department of Human Assistance	2017 – 2018
Researcher Mind Field Season 3 (YouTube Originals)	2018
Science Communication Associate Twist Bioscience, Inc.	2015 – 2018