

ELIZABETH HALL

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Ph.D. in Cognitive Neuroscience with a focus on Computational Vision.

EXPERIENCE

Program Principal Investigator

Davis, CA

Center for Mind and Brain, UC Davis – Integrated Attention Lab

Aug. 2020 – Aug. 2024

- Principal investigator on 4-yr program on selective attention in virtual reality
- Secured \$250,000 in research funding from the *Office of Naval Research*
- Led a team of 7 research assistants in VR/AR, eye-tracking, psychophysics, and computer vision
- Head of multi-lab UC Davis – Project Aria collab w/ focus on mapping object attention across depth
- Published research on object attention and scene perception in 5 high-impact academic journals
- Invited by *Carnegie Mellon Multisensory Lab*, *UC Merced Complex Systems Dept*, *Meta Reality Labs Display Systems*, *Psychonomic Society*, *Vision Science Society* to present work on egocentric perspectives of 3D space

Data Science Intern

Seattle, WA

Amazon Alexa – Customer Behavior & Engagement

June 2023 – Sept. 2023

- debugged SVM/PCA casual inference network forecasting customers' weekly Alexa activity across different domains (10 million customers, 20 Alexa domains)
- developed LSTM recurrent network with DeepAR+ framework to predict Alexa interactions
- improved data engineering pipeline with SQL/Python in AWS/ETL/S3 architecture

Graduate Researcher

Davis, CA

Center for Mind and Brain – Visual Cognition Lab

Sept 2018 – Aug. 2020

- designed novel machine learning methods to predict oculomotor behavior
- developed Python, MATLAB, and R code to analyze large eye-tracking data
- published research in 3 high-impact academic journals

Research Fellow

Bethesda, MD

National Institutes of Health

Aug. 2016 – Aug. 2018

- Awarded \$80,000 to support 2-year position researching scene representations in the brain
- Published behavioral and neuroimaging research on scene representations in *Nature Communications*, *Memory*, *Scientific American*, *Cerebral Cortex* and *Quanta Magazine*

EDUCATION

2024 PhD Psychology (Cognitive Neuroscience), University of California, Davis

Dissertation: *Object Attention in Scene Perception and Memory*

2016 MSc Cognitive Neuroscience, University of the Basque Country

2015 BA Neuroscience, Bennington College

Awards: UC President's Dissertation Fellow (2023-2024), National Defense Science & Engineering Fellow (2020-2023), National Eye Institute Early Career Scientist (2023)

SKILLS

Programming: Python, SQL, R, MATLAB, C++, Javascript, bash, CSS/HTML

Tools: Tensorflow, pytorch, HuggingFace, OpenCV, docker, fastText, sklearn, scipy, numpy, pandas

Techniques: multimodal representation learning, dimensionality reduction, learning 3D scene geometry