

Abbie M. Popa, ScB

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UC Davis Neuroscience Graduate Group

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EDUCATION	PhD University of California at Davis (September 2012 - June 2018) Dissertation: Behavior and EEG Testing of Teen Anxiety Data Science Initiative Affiliation Honors ScB. , Brown University (September 2006-December 2010) Major: Cognitive Neuroscience
TECHNICAL SKILLS	Software including: Python, R, Matlab, Jupyter, git, SQL, SPSS, DataGraph, L ^A T _E X Packages including: sklearn, pandas, numpy, scipy, matplotlib, TensorFlow, keras, ggplot, nlme
TECHNICAL EXPERIENCE	UC Davis MIND Institute Sacramento, CA <i>PhD Researcher</i> September 2012 - present <ul style="list-style-type: none">• Developed six child-friendly computerized behavior tests (disguised as games)• Used k-means clustering to classify children as "copers" or "strugglers" based on behavioral, eye-tracking, and self-report measures• Used ICA to isolate brain activity from noise in EEG data• Used mixed effects linear modeling to classify participants behavior over time• Used linear regression to correlate trajectories of brain development and children's outcomes in a large (approximately 500 GB) MRI dataset• Programmed data analyses and visual stimuli using R, Python, and Matlab• Trained and mentored four junior research assistants and seven volunteer interns• Resulted in one submitted manuscript, three in-progress manuscripts, 5 international conference oral presentations (4 first author) and 13 international conference poster presentations (5 first author)• Received three travel awards in recognition of my work Davis Incubator Group Student organized group at UC Davis <i>President</i> September 2016 - present <i>Member</i> January - August 2016 <ul style="list-style-type: none">• Completed online coursework in python, SQL, and machine learning• Completed two collaborative Kaggle image classification challenges using skimage, TensorFlow, tflearn, keras, OpenCV and PIL on an AWS machine to efficiently localize and classify images through convolutional neural networks for datasets up to 100 GB.• Completed a collaborative Driven Data competition using Pandas and sklearn to finish in the top 10% of competitors• Developed individual projects using tools including sklearn in Python, and nnet in R• Organized and scheduled meetings for a group of 6-8 data scientists to practiced coding, machine learning, and share data science skills UC Davis Data Science Initiative Davis, CA <i>Affiliate</i> April 2016 - present <ul style="list-style-type: none">• Contributed to a collaborative reading group on <i>Think Python</i> where we read and discussed the chapters and implemented the exercises as well as elaborated on best practices• Implementing <i>An Introduction to Statistical Learning</i> collaboratively using Python and packages including statsmodels, scipy, numpy, pandas, sklearn, matplotlib, and seaborn• Consulted with members of the UC Davis community on data science problems from twitter scraping to genomics as part of team un-seminars

**TEACHING
EXPERIENCE**

Neurobiology

Dr. Lee M. Miller UC Davis Department of Neurobiology, Physiology, and Behavior, Davis CA
Teaching Assistant April 2015-June 2015

- Planned nine weeks of discussion sections with two co-TAs. Prepared material for an hour of homework review, practice problems, and discussion of lecture material and readings.
- Independently led 3 one hour discussion sections for a total of 75 students each week.
- Graded two short answer midterms and one short answer final exam for 200 students

**LEADERSHIP
EXPERIENCE**

Neuroscience Initiative to Enhance Diversity

Davis, CA

Student Organizer

Event held April 2016

- Organized event that recruits 25 undergraduates from historically black and Hispanic serving colleges to increase representation in PhD programs
- Coordinated 10 workshops led by faculty and students
- Led a student data blitz and student panel on preparing your best application
- Conducted mock interviews with the students

Explorations, UC Davis Undergraduate Research Journal

Davis, CA

Editor

February 2015 - August 2015

Managing Editor, Physical and Life Sciences

September 2015 - June 2017

- Found appropriate faculty reviewers for student submitted publications
- Communicated faculty reviewer comments to student authors
- Assessed the reviewed and edited papers for acceptance in a yearly UC Davis publication
- Copy-edited and formatted student articles for publication

**COMMUNITY
SERVICE**

Intertational Rescue Committee

Sacramento, CA

Refugee Empowerment Volunteer

January 2017 - October 2017

- Assisted recent refugees to the United States in preparing resumes and job applications
- Helped organize the first cohort of Women's Empowerment Programming, including survey design, focus group summary, and working with the women in the program
- Organized paperwork including financial forms to ensure compliance

Women in Science and Engineering

Davis, CA

Mentor, Workshop Organizer, and Presenter

September 2015 - June 2017

- Mentored an undergraduate woman interested in pursuing an engineering graduate degree
- Designed, organized, and presented a workshop on how to apply to graduate school to 20 undergraduate women

The Graduate Academic Achievement and Advocacy Program

Davis, CA

Graduate Student Volunteer and Mentor

September 2013 - June 2015

- Advised and assisted students from underrepresented minorities on topics including graduate school applications and science writing
- Planned and ran workshops for students from underrepresented minorities on topics including graduate school applications, research assistantships, and gap years
- Mentored a student

Graduate Student Assembly

Davis, CA

Departmental Representative

September 2013 - June 2015

- Attended meetings and voted on policy affecting graduate students at UC Davis and in the wider UC graduate student assembly
- Publicized information to graduate group