

**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 - December 2017)  
Major: Cognitive Neuroscience with a Data Science Initiative Affiliation  
**Honors ScB.**, Brown University (September 2006-December 2010)  
Major: Cognitive Neuroscience

**TECHNICAL SKILLS**      Python, R, Matlab, Jupyter, git, SQL, SPSS, DataGraph, L<sup>A</sup>T<sub>E</sub>X , HTML, CSS  
Packages including TensorFlow, sklearn, ggplot, nlme, pandas, tflearn

**TECHNICAL EXPERIENCE**      **PhD Researcher**      UC Davis MIND Institute and Neuroscience Graduate Group  
Davis, CA      September 2012 - present

- Developed 6 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 non-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) dataset
- Programmed data analyses and visual stimuli using R, Python, and Matlab
- Trained and mentored four junior research assistants and seven volunteer interns

**Davis Incubator Group**      Student organized group at UC Davis  
President      (September 2016 - present)  
Member      (January - August 2016)

- Completed online coursework in python, SQL, and machine learning
- Completed two collaborative Kaggle competitions 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 and shared individual work using tools including Facebook's publically available package FastText
- Organized and scheduled meetings for a group of 6-8 data scientists to practiced coding, machine learning, and share data science skills

**LEADERSHIP AND COMMUNITY EXPERIENCE**      **International Rescue Committee**  
Refugee Empowerment Volunteer (Focus on Computer Support/Literacy) (Jan 2017 - Present)  
**Explorations, UC Davis Undergraduate Research Journal**  
Managing Editor (Sept 2015 - Present)  
Editor (Feb - June 2015)  
**Neuroscience Initiative to Enhance Diversity**  
Student Organizer (Event held April 2016)  
**Neurobiology (class of 200 undergraduates)**  
Teaching Assistant (April - June 2015)