

## Abbie M. Popa, ScB

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## UC Davis Neuroscience Graduate Group

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<b>EDUCATION</b>	<b>PhD University of California at Davis</b> , Davis, CA, (September 2012 - December 2017) Major: Cognitive Neuroscience with a Data Science Initiative Affiliation <b>Honors ScB.</b> , Brown University, Providence, RI, (September 2006-December 2010) Major: Cognitive Neuroscience	
<b>TECHNICAL SKILLS</b>	R, Matlab, Python, Jupyter, git, SQL, SPSS, DataGraph, L <sup>A</sup> T <sub>E</sub> X , HTML, CSS Packages including ggplot, nlme, sklearn, pandas	
<b>PROJECTS</b>	<b>Kaggle Done Quick: Animal Shelter Predictions</b> <b>FastText Horror Author Classification</b> <ul style="list-style-type: none"><li>• Used Facebook's publically available package FastText to classify text</li><li>• Populated data from Project Gutenberg of copyright free text</li><li>• Achieved 80% accuracy for single sentences between two horror authors (Mary Shelley and H.P. Lovecraft)</li></ul> <b>Driven Data: Blood Drive Donations</b> <ul style="list-style-type: none"><li>• Cleaned data in pandas to account for outliers and unusual distributions</li><li>• Used sklearn to cross-validate multiple models, eventually selecting random forest classification</li><li>• Collaborated with three other data scientists</li><li>• Finished in the top 10% of competitors</li></ul> <b>Kaggle: Fish Identification</b> <ul style="list-style-type: none"><li>• Used skimage, tensorflow, and tflearn to classify fish images from a kaggle data set</li><li>• Collaborated with three other data scientists to apply convolutional neural networks</li></ul>	
<b>TECHNICAL EXPERIENCE</b>	<b>PhD Researcher</b> Davis, CA	UC Davis MIND Institute and Neuroscience Graduate Group September 2012 - present <ul style="list-style-type: none"><li>• Developed 6 child-friendly computerized behavior tests (disguised as games)</li><li>• Used k-means clustering to classify children as "copers" or "strugglers" based on behavioral, eye-tracking, and self-report measures</li><li>• Used ICA to isolate brain activity from noise in EEG data</li><li>• Used non-linear modeling to classify participants behavior over time</li><li>• Used linear regression to correlate trajectories of brain development and children's outcomes in a large ( 500 GB) dataset</li><li>• Programmed data analyses and visual stimuli using R, Python, and Matlab</li><li>• Trained and mentored four junior research assistants and seven volunteer interns</li></ul> <b>Davis Incubator Group</b> Davis, CA President Member

Student organized group at UC Davis  
January 2016 - Present  
(September 2016 - present)  
(January - August 2016)

- Completed online coursework in python, SQL, and machine learning
- Participated collaboratively in online machine learning competitions, finishing in the top 10% of a drivendata.org competition
- 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**

Editor

(Feb - June 2015)

Managing Editor

(Sept 2015 - Present)

**Neuroscience Initiative to Enhance Diversity**

Student Organizer

(Event held April 2016)

**Neurobiology (class of 200 undergraduates)**

Teaching Assistant

(April - June 2015)