Abbie M. Popa, Ph.D.

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EDUCATION

Ph.D., University of California at Davis, Neuroscience — June 2018
Honors Sc.B., Brown University, Cognitive Neuroscience — May 2011

TECHNICAL SKILLS

Software including: Python, R, Jupyter, git
Packages including: sklearn, pandas, numpy, scipy, matplotlib, ggplot, fastai, lm, lme, dplyr

TECHNICAL EXPERIENCE

The Data Institute at the University of San Francisco — San Francisco, CA
Data Science Postdoctoral Fellow — August 2018 - present

- Using deep learning techniques including feature embeddings to better describe nodes in brain networks from patients with schizophrenia and healthy controls
- Using machine learning techniques including random forests and support vector machines to classify non-linear features in EEG from infants who were born preterm
- Contributing to a collaborative reading and practice group on Reinforcement Learning
- Consulting on collaborations with 4 private sector companies
- Instructed and developed an Introduction to Data Science class for 36 undergraduates

UC Davis MIND Institute — Sacramento, CA
Ph.D. Researcher — September 2012 - June 2018

- Used k-means clustering to organize behavioral, eye-tracking, and self-report measures
- Used mixed effects linear modeling to identify patterns in participants' behavior over time
- Developed 6 child-friendly computerized behavior tests (disguised as games)
- Trained and mentored 6 junior research assistants and 7 volunteer interns
- Resulted in 4 manuscripts (in progress) and 18 conference presentations (completed)

Davis Incubator Group — Student organized group at UC Davis
President — September 2016 - June 2018
Member — January - August 2016

- Completed 2 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

UC Davis Data Science Initiative — Davis, CA
Affiliate — April 2016 - June 2018

- Contributed to collaborative reading and practice groups on *Think Python* and *An Introduction to Statistical Learning*
- Consulted with members of the UC Davis community on data science problems from twitter scraping to genomics as part of team seminars

LEADERSHIP AND COMMUNITY EXPERIENCE

Software Carpentry
Certified Instructor for bash, git, R, and Python — May 2018 - Present
International Rescue Committee
Refugee Empowerment Volunteer — January 2017 - October 2017
Explorations, UC Davis Undergraduate Research Journal
Editor — February 2015 - August 2015
Managing Editor, Physical and Life Sciences — September 2015 - June 2017