Abbie M. Popa, Ph.D.

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EDUCATION

Ph.D., University of California at Davis, Neuroscience Honors Sc.B., Brown University, Cognitive Neuroscience June 2018 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 self-supervised 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 3 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

President

Student organized group at UC Davis

September 2016 - June 2018

Member

January - August 2016

- Completed 2 collaborative Kaggle image classification challenges using skimage, Tensor-Flow, 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