

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 EXPERIENCE	Cogitativo (healthcare consulting start-up)	Berkeley, CA
	<i>Data Science Intern</i>	April 2019 - present

- Developed models, metrics, and Tableau dashboards from millions of records stored in AWS Redshift to understand healthcare operations data.

	The Data Institute at the University of San Francisco	San Francisco, CA
	<i>Data Science Postdoctoral Fellow</i>	August 2018 - present

- Described nodes in brain networks from patients with schizophrenia and healthy controls using self-supervised machine learning (feature embeddings)
- Contributing to a web-based app for mass processing of electroencephalography (EEG) files in the cloud
- Classifying nonlinear features in EEG from infants who were born preterm using machine learning techniques including random forests and support vector machines
- Consulting on collaborations with 3 private sector companies
- Managed projects resulting in 2 published IEEE proceedings using PySpark and SparkML to make predictions on EEG data in collaboration with other researchers
- Instructed and developed an Introduction to Data Science class for 36 undergraduates
- Completed deep learning coursework using fast.ai and PyTorch (fast.ai certification course)

	University of California at Davis	Davis, CA
	<i>Ph.D. Researcher</i>	September 2012 - June 2018

- Used mixed effects linear modeling to identify patterns in participants' behavior over time
- Used k-means clustering to organize behavioral, eye-tracking, and self-report measures
- Used ICA to isolate brain activity from noise in EEG data
- Developed 6 child-friendly computerized behavior tests (disguised as games)
- Trained and mentored 6 junior research assistants and 7 volunteer interns
- Produced 4 manuscripts (1 accepted) and completed 18 conference presentations
- Helped organize and run Davis Incubator Group, a group for graduate students interested in machine learning and data science
- Consulted with members of the UC Davis community on data science problems from twitter scraping to genomics as an affiliate of the Data Science Initiative

TECHNICAL SKILLS	Software including: Python, R, Jupyter, git, PostgreSQL Packages including: sklearn, pandas, NumPy, SciPy, matplotlib, ggplot, lm, lme, dplyr
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LEADERSHIP AND COMMUNITY EXPERIENCE	Software Carpentry	
	<i>Certified Instructor for bash, git, R, and Python</i>	May 2018 - Present
	International Rescue Committee	
	<i>Refugee Empowerment Volunteer</i>	January 2017 - October 2017
	Explorations, UC Davis Undergraduate Research Journal	

<i>Editor</i>	February 2015 - August 2015
<i>Managing Editor, Physical and Life Sciences</i>	September 2015 - June 2017