

EDUCATION **PhD University of California at Davis**, Davis, CA, (September 2012 - December 2017)

Major: Cognitive Neuroscience with a Data Science Initiative Affiliation

Honors ScB., Brown University, Providence, RI, (September 2006-December 2010)

Major: Cognitive Neuroscience

TECHNICAL SKILLS Python, R, Matlab, Jupyter, git, SQL, SPSS, DataGraph, L^AT_EX, HTML, CSS

Packages including TensorFlow, sklearn, ggplot, nlme, pandas, tflearn

PROJECTS **Kaggle: Fish Identification**

- Used skimage, TensorFlow, and tflearn to classify fish images from a kaggle data set
- Preprocessed images using PIL and skimage and stored data in HDF5 for efficiency
- Collaborated with three other data scientists to apply convolutional neural networks

FastText Horror Author Classification

- Used Facebook's publically available package FastText to classify text
- Pre-processed text populated from Project Gutenberg public domain database using bash
- Achieved 80% accuracy for single sentences between two horror authors

Kaggle Done Quick: Animal Shelter Predictions

- Cleaned and re-binned data for feature dimensionality reduction
- Performed multinomial logistic regression using the nnet package of R to predict five possible outcomes for shelter animal and generated confusion matrices to visualize data
- Completed project in under 4 hours

Driven Data: Blood Drive Donations

- Cleaned data in pandas to account for outliers and unusual distributions
- Used sklearn to cross-validate multiple models, selecting random forest classification
- Collaborated with three other data scientists to finish in the top 10% of competitors

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
- Participated collaboratively in online machine learning competitions
- 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)