

Brian Ripley

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EDUCATION

University of California, San Diego

2019 - 2022

Bachelor of Science, Cognitive Science w/ a specialization in machine learning and neural computation

(Working toward) Minor in Data Science

Cumulative GPA: 3.59

Provost Honors (2020, 2021)

Miracosta College

2018-2019

Cumulative GPA: 3.89

President's List (2018, 2019)

University of California, Santa Barbara

2017

Bachelor of Science, Pharmacology; Incomplete

EXPERIENCE

Freelance Writing for AI Startup

Sept 2021 - Nov 2021

Scale AI

- Summarized videos of interviews and presentations of leaders in the tech field such as CTO of Microsoft, Kevin Scott, and Chief Data Officer at Etsy, Chu-Cheng Hsieh
- Added valuable insight and clarification of machine learning and artificial intelligence terminology

PROJECTS

Material Composition Analysis Using Spectral Clustering

Fall 2021

- Solved a material science problem using primarily spectral clustering from scratch
- Segmented a raster image of a material by elemental phases
- Compared accuracy and runtime of spectral clustering, k-means, DBSCAN and HDBSCAN

Classification of Primary Tumor Sites Using Supervised Machine Learning

Spring 2021

- Determined the origin of a metastasized tumor using the areas of its spread as well as other characteristics of the patient and tumor composition
- Compared supervised machine learning methods (logistic regression, k-nearest neighbors, random forest and support vector machine)
- Optimized the parameters for the models and performed statistical comparison

Face Recognition Using Raspberry Pi and OpenCV

Spring 2021

- Developed a rudimentary face recognition system using a preexisting face dataset and OpenCV functions
- Learned how to use a Raspberry Pi and PiCamera to train the model to recognize and identify new faces by name
- Researched the classifier used by OpenCV to perform face recognition

Investigation of COVID-19 Infection and Death in U.S. Prisons

Winter 2020

- Data science project analyzing whether overcrowding, healthcare funding and racial demographics of prisoners by state is correlated to higher COVID-19 infection and death
- Performed data preprocessing, visualization and statistical comparisons

Ketamine Treatment for Depression (poster presentation)

May 2019

Omni Research Showcase

- Analyzed academic articles with evidence for the treatment of depression through clinical administration of ketamine
- Created a posterboard and presented in an academic conference

Synaptic Brain Pruning and Schizophrenia (poster presentation)

May 2018

Omni Research Showcase

- Analyzed research regarding excessive brain pruning in early adults and its correlation to schizophrenia diagnoses

- Created a posterboard and presented in an academic conference

ADDITIONAL

Technical: Python (pandas, numpy, opencv), Java, Apple Xcode (iOS development), learning C/C++, SQL, PyTorch and TensorFlow

Languages: Fluent in English; Conversational Proficiency in Spanish