
EXPERIENCE

• University of California, Davis

Davis, CA

*Undergraduate Researcher; Statistics Department**May 2020 - Present*

- **Research Lead:** Managed every aspect of the research project from data collection, model building, and cloud management.
- **Music Information Retrieval:** Used Librosa for audio transformations inside and outside of the time-frequency domain such as Fast Fourier Transformations, Log-frequency power spectrograms, and Mel Frequency Cepstrum Coefficients (MFCCs.)
- **Deep Learning Research:** Reconstructed various Neural Network architectures such as Spleeter (LSTM,) Vocal U-Net (CNN,) and Demucs for comparison of Vocal Extraction in TensorFlow.
- **Cloud Management:** Utilized Google Cloud Platform (GCP) for training, testing, and serving of models alongside buckets for data storage and management.

• Mathnasium

Davis, CA

*Mathematics Tutor**September 2019 - Present*

- **Improved Scores:** Worked one-on-one with children diagnosed with ADHD and Autism to help improve homework and test scores.
- **Tutoring:** Tutored Math part-time at every academic level ranging from Kindergarten to AP AB/BC Calculus.
- **Learning:** Refined teaching methods over time to allow for students' maximized retention given their various learning habits.

• Hindsight Technology Solutions

Remote

*Machine Learning Intern**August 2019 - February 2020*

- **Web Scraping:** Created large-scale web scrapers to retrieve a minimum of 500 articles at a time.
- **Data Cleaning:** Parsed and cleaned through corpus data to retrieve key words/entities of each document.
- **Web Apps:** Developed a web application using streamlit as an extension of a Natural Language Processing (NLP) model to facilitate semi-supervised training.

• Penji

Remote

*Data Science Intern**January 2019 - August 2019*

- **Marketing Analysis:** Studied KPIs with CEO to analyze marketing results - improved marketing strategies by 20%
- **Data Dashboards:** Automated tracking of app's virality across campuses in Jupyter notebooks.

PROJECTS

- **Audio Classifier:** Blended digital signal processing and supervised machine learning techniques to predict instruments with an accuracy of 98%.
- **Personal Portfolio:** Built and deployed a static personal website using Hugo, Markdown, and Netlify.

RELEVANT COURSES

- **Supervised/Unsupervised Statistical Learning:** Two series class that focused on numerous methods of regression, classification, clustering, dimension reduction, and other modes of statistical learning adjunct with implementation of algorithms using sklearn.
- **Statistical Data Science/Big Data Technologies:** Three series class in which students learn about data analysis and model building utilizing the tools in R, Python, and SQL.
- **Probability Theory/Mathematical Statistics:** Three series classes which began with an introduction to the rules of probability and developed towards parameter estimation and hypothesis testing using mathematical statistics.
- **Bayesian Data Analysis:** Developed intuition on the properties of multi-dimensional prior and posterior distributions as well as various random sampling methods.

EDUCATION

• University of California, Davis

Davis, CA

*Bachelor of Science in Statistics - Machine Learning Track; GPA: 3.15**Sep. 2017 - June 2021*