

# Jasper Tsai

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## Education

University of California, Davis- *M.S. in Statistics, Data Science*

September 2022 - December 2023

University of California, Davis- *B.S. Statistical Data Science*

September 2018 - June 2022

## Experience

### Data Analyst Intern, Valuenex Inc, Palo Alto

March 2022 - September 2022

- Automated refinement of clientele data via Python scripts and increased data processing speeds by 10%.
- Facilitated data driven business decision-making by identifying key insights in customers' portfolio through statistical analysis and data visualizations.
- Collaborated with lead data scientist from a client preclinical research organization and recommended new research focus areas based on conducted data analysis.
- Led a consulting project for a high visibility automotive company and advised final partnership decisions.

## Projects

### Yelper Review Text Classification- *Personal Project*

June 2023 - September 2023

- Classified Yelp restaurant reviews into food or service-related categories using transfer learning by fine tuning BERT-base in PyTorch and HuggingFace Transformers while also demonstrating proficiency in cloud-based job management.
- Manually labeled dataset of 1000 reviews into one-hot categories for finetuning. Compared results to a baseline bi-directional LSTM using pre-trained word2vec embeddings.

### Pianist Style Synthesis, Fushing Lab, UC Davis - *Graduate Research Project*

August 2021 - July 2022

- Data mined audio files (MP3, WAV, and FLAC) to obtain patterns from various pianists.
- Preprocessed audio data to streamline feature extraction, leading to easier interpretation of analytical results.
- Investigated characteristics between pianists through their fundamental frequencies and music dynamics with the use of Python Librosa and Audacity spectrograms.
- Composed educational videos to introduce the audience into the field of this research and propose future research direction.

### Fundamental Stock Scanner - *Personal Project*

September 2020 - December 2021

- Built a stock ticker scanner that utilized a company's PE ratio to determine the intrinsic value of a searched stock with a team of 3.
- Scraped Yahoo Finance and utilized TD Ameritrade API for more up to date live stock data.
- Coded user interface in StreamLit and streamlined SQL database to preserve RAM on local function calls to enhance end user experience.

## Skills

**Technical:** Python, R, SQL, Git/GitHub, MATLAB, Java, Statistical Modeling, Natural Language Processing, Machine Learning, A/B Testing(Hypothesis Testing), Microsoft 365, Google Workspace

**Coursework:** Applied Time Series, Bayesian Inference, Multivariate Data Analysis, Statistical Methods, Causal Inference, Optimization in Big Data Analytics