

JINXIANG MA

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EDUCATION

University of California, Santa Barbara(UCSB), Santa Barbara, CA

Expected Graduation: Jun 2023

Bachelor of Science(B.S.), Statistics and Data Science

GPA: 3.70

Awards: Dean's Honor (4 times)

Relevant Coursework: R Programming, SAS Programming, Python Programming, Probability Theory, Regression Analysis, Data Science Concept and Analysis, Mathematics of Fixed Income Markets, Bayesian Data Analysis, Non-parametric Statistics, Experimental Design, Financial Market Risk and Modeling, Time Series, Machine Learning, Predictive Modeling in Linguistic.

Bachelor of Art(B.A.), Mathematics

GPA: 3.74

Relevant Coursework: Linear Algebra, Discrete Mathematics, Vector Calculus, Differential Equation, Real Analysis, Numerical Analysis, Operations Research

RESEARCH

Undergraduate Research Assistant

Feb 2022 - Present

Social Perception Lab, UCSB

Santa Barbara, CA

Research Project: Twitter Sentiment Analysis

Advisor: Kyle Ratner (Professor)

- Scrape tweets data from Twitter using Twarc2 API.
- Clean and reorganize tweet data using regex and glob.
- Streamline the existing code and perform sentiment analysis on LGBTQ tweets using Textblob and visualize the polarity and subjectivity of each tweet using the Altair package.
- Attend weekly meetings and share results with other team members.

EXPERIENCE

Engineering Design Trainee

Jun 2022 - Present

San Francisco Public Utilities Commission

San Francisco, CA

- Analyze and reallocate budget spending for infrastructure projects over 5 million.
- Optimize data-entry processes by creating new tools using Microsoft VBA and Power Apps.
- Integrate 3+ data source systems into Data Warehouse for Infrastructure Projects.
- Update project information and generate summary reports using Primavera Unifier.
- Prepare quarterly report and project management plan for project managers.
- Collaborate with IT department to overhaul the bureau's web page.

Data Analyst

Feb 2022 - Present

GoGaucho

Santa Barbara, CA

- Actively engage in app development process of GoGaucho, a mobile app developed by UCSB students and provide service to over 10,000 users every month.
- Retrieve academic curriculum data using UCSB API. Analyze historical course enrollment and shared results with the GoGaucho team.
- Collect campus geographical data to construct an interactive map that assist UCSB students in finding classrooms.

Student Assistant

Sep 2021 - Present

DREAM Lab, UCSB Library

Santa Barbara, CA

- Assist library users in cleaning and preparing data for analysis.

- Maintain statistic on the lab and identify IT issues.
- Answer student's questions in the Data Science Carpentry workshop and develop workshop materials.
- Completed multiple programming projects on speech processing and web-scraping.

PROJECTS

Understanding critical factors of Minority and Transferred Students in the U.S. Schools. Performed Simple Linear Regression and Multiple Linear Regression on college enrollment data to determine if any factors affect the number of college students, by calculating the goodness of fit using R-square and utilizing heat-map to detect multicollinearity between different factors. ([Link](#))

Poverty Prediction with Census and Education Data Performed PCA on county-level census data and calculated PVE for each principal component. Conducted hierarchical clustering with complete linkage on each principal component. Predicted poverty rate with different classification methods such as decision tree, logistic regression, Lasso regression, random forest, and LDA. Computed the AUC rate to measure the performance of each classification method. ([Link](#))

Crafting S.L. Market Expansion Case studies of profitability in different business scenarios. Identified the constraints and construct Linear Programming models for each scenario. Analyzed supply chain base on Lingo Solution Report and Sensitivity Report, and provide insight on how to allocate resources to maximize profitability. ([Link](#))

Navigating Interest Rate Risk Analyzed historical bond return data and simulate the possible outcome of Treasury bonds using the ESG model. Delivered recommendations on portfolio allocation for different investment horizons. ([Link](#))

Multilingual Audio Transcription with Azure Speech to Text SDK(DREAM Lab) Performed Batch Transcription using REST API. Implemented JavaScript code to generate blob URLs for audio files. Customized continuous recognition with language detection and speaker diarization features to generate transcription for bilingual audio. Trained and tuned custom speech model in Azure Speech Studio, yielding a new model that has a lower word error rate(WER) compared to the original model.

Dianping Business Scrape(DREAM Lab) Scraped Children's Libraries information in China from DianPing.com (the Chinese equivalent of Yelp) with HTTP requests and sessions, extracted website cookies using selenium web-driver and bypassed Captcha with a modified request header. Retrieved a list of children's libraries in over 2000 Chinese cities with the URL of their respective web pages. Parsed HTML code iteratively into BeautifulSoup object, located and scraped relevant information with XPath, and exported the final result into CSV files. ([Link](#))

EXTRA-CURRICULAR ACTIVITIES

- *Member*, UCSB Data Science Club
- *Member*, UCSB Data Analysis and Coding Club
- *Member*, UCSB Math Club

SKILLS

Programming Skills	Python, C++, SQL, SAS, JavaScript, HTML, R, Stan, VBA, Git, Bash, L ^A T _E X
Computer Software	Jupyter Notebook, Rstudio, MySQL, Nvivo, Lingo, MS Office, SharePoint, Primavera Unifier, Google BigQuery, Overleaf, Microsoft Azure
Languages	English(Fluent), Cantonese(Native), Mandarin(Native)