San Diego, CA (408) 766-9190 sophia880221@gmail.com

EDUCATION

M.S. in Business Analytics, GPA: 3.74/4.0

07/2024 - 12/2025

University of California San Diego

San Diego, CA

• Relevant Courses: Web Mining and Recommender Systems / Collecting and Analyzing Large Data

B.S. in Business Analytics, GPA: 3.63/4.0

08/2022 - 06/2024

San Jose State University

San Jose, CA

Award/ Scholarship: Cum Laude

EXPERIENCE

Market Research Analyst, City of San Jose, San Jose, CA

02/2024 - 05/2024

Collaborated with Division Manager of San Jose Parks Department to execute feasibility studies and demographic analysis for the adaptive reuse of a historic building, delivering data-driven recommendations

- Conducted demographic and market research using R to analyze community needs and forecasted demand for recreation programs, predicting an increase of over 100 participants based on a 95% confidence interval
- Created interactive Tableau visualizations to present findings, leading to a recommendation for converting the building into a rental space for community events, generating potential revenue

Business Intelligence Intern, JunHe Technology Co., LTD, Taichung, Taiwan

06/2023 - 09/2023

JunHe Technology Co., LTD is a rapidly expanding plastic injection company specializing in contact lenses, medical components, and optical module lenses, with several hundred employees

- Developed proficiency in MySQL for efficiently extracting, processing, and analyzing extensive competitor pricing data, managing datasets of approximately 47,000 entries.
- Partnered with business analysts to pioneer NLP techniques leveraging TensorFlow, building machine learning models boosting sentiment analysis accuracy over legacy Excel methods
- Engineered Tableau visualization reporting sales data sliced by product line, region & customer persona to spotlight growth opportunities

PROJECTS

Thermo Fisher Lead Time Characterization and Optimization, Rady MSBA Capstone Project

06/2025

- Constructed dynamic lead time optimization model targeting 30% reduction in inventory excess costs while maintaining 99% service levels, using 5 years of enterprise supply chain data from a major biotechnology company
- Architected a configurable data interface projected to improve ERP system accuracy by 23%, enabling teams to simulate various lead time scenarios by adjusting cost-risk parameters
- Discovered key leading indicators through predictive analytics aimed at forecasting lead time fluctuations 4-6 weeks in advance, enabling proactive supply chain management
- Deployed all solutions with Databricks for operational implementation, estimated to save 200+ planner hours monthly by providing automated prescriptive insights across global operations

Sentiment Analysis of Disneyland Park Reviews

03/2025

- Engineered a multi-model NLP sentiment classification framework achieving 95.75% accuracy by comparing traditional ML algorithms (SVM, Logistic Regression) with deep learning approaches (CNN, TextCNN)
- Applied Processed and analyzed 42,000+ customer reviews across three global Disneyland parks using advanced text preprocessing techniques including tokenization, stopword removal, and stemming
- Implemented feature extraction methods including TF-IDF, CountVectorizer, and Word2Vec embeddings to transform unstructured text data for optimal model performance
- Translated NLP findings into actionable business recommendations for queue management, staff training, and pricing strategies based on word cloud analysis and sentiment patterns

Machine Learning Model Comparison for Customer Response Prediction

02/2025

- Performed comparative analysis of four machine learning models (Logistic Regression, Random Forest, Neural Network, XGBoost) on 600K customer interaction dataset
- Developed predictive framework to optimize marketing message targeting, demonstrating potential 17% revenue improvement through a personalized approach
- Rigorously evaluated model performance using AUC, precision, recall and profit analysis
- Generated visualization dashboards comparing model performance using gains plots and profit curves

SPECIALIZED SKILLS

- Technical Skills: Python, SQL, R, Tableau, MS Excel, Salesforce, TensorFlow, Pytorch, Google Analytics
- Analytical Skills: Statistical Analysis, Supply Chain Analytics, Data Visualization, Predictive Modeling, A/B Test, Natural Language Processing