

Haochen (Keira) Zhu

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Seeking Data Scientist (DS) full-time positions

EDUCATION

University of Southern California

M.S. Business Analytics (STEM)

GPA: 3.8/4.0

Los Angeles, CA

May 2022

University of California, Irvine

B.A. Business Economics

Major GPA: 3.8/4.0

Irvine, CA

June 2020

Collegiate Awards: Dean's Honor List, 6 quarters

SKILLS

- Programming platforms: Python, R, SQL, NoSQL, JMP Pro, Tableau
- Tools: pandas, NumPy, Scikit-learn, Seaborn, Pyplot, Plotly, ggplot, Matplotlib, PySpark, Hadoop

EXPERIENCE

Data Analyst Intern

Stock Navigators

Los Angeles, United States

Jun 2021 - Aug 2021

- Collected and filtered interested data from Facebook analytics and company's csv files, removed and handled missing values and outliers using pandas and NumPy in Python
- In order to improve the effectiveness and usefulness of the final result, conducted the exploratory data analysis (EDA) which includes data mining and data visualization to generate valuable insights for designing and specifying further process of marketing analysis
- Built and trained machine learning (ML) models (random forest, gradient boosting, PCA) using Scikit-learn in Python to find significant drivers of sales and to predict revenues of major products
- Performed customer cluster analysis (k-means, Agglomerative, hierarchical) to segment customers in order to provide customer-based recommendations
- Improved 20% on revenue, by offering targeted marketing plans and adjustments to product contents derived from the analysis

Marketing Data Analyst Intern

Ctrip.com International, Ltd.

Shanghai, China

Sep 2019 - Oct 2019

- Used SQL to query desired the data of tourists' outbound number, sales, etc. from company's database
- Performed data wrangling to aggregate and map the data in order to discover meaningful trends and patterns in Python; plotted line/bar graph to illustrate the findings using Seaborn
- Increased working efficiency by 50% with automated Tableau dashboard to compute marketing metrics (market share, ROI, volume)
- Helped the company to cut 33% advertising cost, by offering alternative advertising channels based on the analysis and the desk research of competing firms

Shanghai Strategic Business Analyst Intern

Huawei

Shanghai, China

Aug 2019 - Sep 2019

- Visualized the data of government budgets on cloud related topics and researched on policies and news of government/distributors
- Discovered \$10M potential sales opportunities, by suggesting new customer source in the government projects

Risk Management Analyst Intern

China Pacific Life Insurance Co., Ltd (CPIC)

Shanghai, China

Aug 2018 - Sep 2018

- Analyzed and illustrated the company's cash, money market fund and buy-back ratio based on company's database
- Improved the workflow efficiency by 70%, by setting up new Excel equations detecting the bug in subsidiary companies' sales reports; exceeded manager's expectations

PROJECT

Energy Company Load Forecasting competition

Oct 2021 - Dec 2021

- Performed robust data cleaning and data pre-processing on energy load data to prepare for the time series model
- By using A/B testing mechanism, selected best model among time series models (ARIMA, MSTL, ETS) and Machine Learning models (Neural networks, XGBoost, GBM) in R and Python, increased the accuracy from 80% to 95%
- Did hyper-parameter tuning to further increase the accuracy and feature engineering to create useful variables (lag, week, Hour*temperature, etc. based on SOTA paper), improved my champion model accuracy from 94% to 97% on the actual data sets
- Won the 1st place of the competition and awarded by the International Institute of Forecasting (IIF)

European Call Option

Feb 2021 - Apr 2021

- Predicted the option price using the Black-Scholes model by implementing regression/classification models (Neural Network, k-nearest neighbors, decision tree) using Scikit-learn and cross-validation in Python to reach an accuracy of 93% on test sets

King's Hawaiian Bakery & Restaurant

Aug 2020 - Dec 2020

- Visualized the data from company's sales, marketing and warehouse Excel file by using Matplotlib, Seaborn and ggplot in Python
- Due to outstanding performance, presented actionable and insightful business recommendations directly to the company's managers

LEADERSHIP

The Hedge Fund Society | *Vice President of External & Social Affairs* | Irvine, CA

Oct 2018 - Oct 2019

- Boosted the engagement rate from 11% to 35% by communicating and organizing popular events more effectively

Chapter of Beta Alpha Psi at University of California, Irvine | *Member* | Irvine, CA

Sep 2019 - Present

- Selected by the business honor society for outstanding academic achievements