

ZHELU (Jerry) MAI

Denton, Texas | 940-595-9706 | ZHELUMAI@my.unt.edu | [Personal Website](#) | [GitHub](#)

Education

University of North Texas

Denton, TX

Master of Science, Business Analytics

Jan 2021 – Dec 2022

Chu Hai College of Higher Education (CHCHE)

Hong Kong, China

Bachelor of Business Administration, Finance

Sep 2012 – Dec 2016

Project Experience

Amazon Review NLP Project

Spring 2022

- Cleaned data by removing URLs, emojis, non-ascii characters using **regular expression**
- Extracted linguistic features based on tokenization, POS tagging, and parsing sentence via **spaCy**
- Tuned parameters via 10-fold cross-validation, SMOTE was used to do **oversampling**

Chatbot for University Related FAQs Project

Spring 2022

- Scraped FAQs from the university websites and set pre-defined Q&A in the chatbot using AIML
- Extracted semantic attributes based on tokenization, name entity, and word2vec via **spaCy**
- Applied **LSTM** instead of LDA to higher than 0.70 at F-1 score in predicting answers of the chatbot

Personal Loan Project

Fall 2021

- Abstracted new key features like household incomes from digging zip code using **uszipcode**
- Eliminated one highly correlated feature and some outliers through a well-developed **EDA**
- Obtained 0.96 at Marco f1-score by the designed random forest model

Housing Prices Competition in Kaggle

Summer 2021

- Gained 5% improvement in accuracy by removing the outliers based on the boxplot via **Matplotlib**
- Merged similar features for adjusting the skewed distribution that achieve 2.7% improvement in performance
- Ranked **Top 5%** in the leaderboard with the tuned gradient boosting model

Work Experience

Operation Officer

Nov 2019 – Dec 2020

Bank of China (Hong Kong)

Hong Kong

- Built automatic programs via **VBA** to deal with 10 daily reports and parts of weekly reports, saving 19% working time, therefore, I was assigned to help the payroll team in managing payroll issuance every day

Skillset

Programming Languages: Python, SQL, VBA, R, HTML5, JavaScript, AIML

Data Visualization: Tableau, Seaborn, Matplotlib, RStudio, QlikView

Database: MySQL, SQL Server, MongoDB

Big Data: Hadoop, Spark, Hive, Pig

Tools: scikit-learn, Pandas, **spaCy**, GitHub, PyCharm, BeautifulSoup, PyTorch