Li Zhuman

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Education Background

Xi'an Jiaotong University Sep.2020 - Jun.2024

Major (School of Management)

Big Data Management and Application bachelor's degree

- GPA：3.88/4.3　Score：90.46/100
- Related Courses: Optimization Algorithms (96), Machine Learning (94), Data Analysis (100), Probability Theory (98), Econometrics (95), Management (93), Operational Research (94), Corporate Finance (97), Social Network and Text Analysis (96)

Minor (School of Economics and Finance)

Financial Engineering (XJTU-CCB Joint Fintech Elite Class) bachelor's degree

- Score：86.85/100 Related Courses: Digital Economy(92), Analysis of Financial Data(90)

Hong Kong University of Science and Technology(Guangzhou) Sep.2024 - Now

Master of Philosophy in Data science and Analytics

Skills & Interests

Programming: Python(DA/DM/ML), Sql, Latex, Stata, R, Matlab, C, Markdown

Tools: Tableau, SPSS, Office, Gephi **Language:** IELTS(8), CET6(595), CET4(638)

Hobbies: Roller blading, Listening to podcasts, Health preservation

Project Experience

Research on the Application of Neural Network Models in Evaluating Second-hand Car Transaction Price Jun.2023 (independently)

- Background: the Chinese online used car market faces issues of information asymmetry and an imperfect pricing evaluation system. Therefore, there is a need to establish a scientifically sound pricing evaluation mechanism to facilitate market development.
- Built a single-layer linear neural network able to interpret features with an R2 score of 0.8812.
- Discovered that tax, MPG (miles per gallon), and production year have a positive impact on prices, while engine size has a negative impact.
- Studied the correlations between embedded vectors corresponding to different categories and found that there are similar effects on prices between certain pairs of car models.
- Built a deep convolutional neural network that utilizes convolutional layers to capture the interaction information of categorical features, with an R2 score of 0.9825.
- Discovered that the interaction information between the model, fuel type, and transmission is effective, and the trained convolutional model exhibits better accuracy and robustness .

Machine Learning-Based Models for Sentiment Recognition and Topic Analysis of Nut Products Shopping Reviews Jan.2023 (independently)

- Crawled 23651 shopping reviews for six renowned nut brands from JD.com.
- Data cleaning, Jieba segmentation and stop word filtering for review content and rating stars.
- Achieved text vectorization using CountVectorizer and TfidfTransformer, and performed data balancing through upsampling and downsampling techniques.
- Compared the results of various machine learning algorithms and built a sentiment recognition model for nut reviews based on SVM, achieving an accuracy of 94.28%.
- Conducted topic analysis using LDA on positive and negative reviews separately, found that negative reviews mainly stem from issues related to cost-effectiveness, taste, and packaging while positive reviews are primarily attributed to the nutritional value, brand reputation, product variety, and high-quality service and provided recommendations for optimizing product strategies.

Study on the effect of the consumers' cognitive trust on Airbnb bookings Oct.2022 - Nov.2022 (participated)

- Identified the quantifiable variables for measuring cognitive trust as follows: the tenure of the host, the length of the room description, the number of rooms owned by the host and the rating of the room.
- Established a regression equation between the number of reviews and cognitive trust after

considering three control variables and one moderating variable.

- Completed the correlation analysis between variables, compared the results of cross-sectional data and panel data regression, and conducted robustness tests using sub-sample regression methods.

Internship

China Construction Bank（CCB） Xi'an, Shaanxi Jul.2023 - Aug.2023

Product Intern in the Government Affairs Department of "Internet Plus"

- **Text Analysis:** Visualized 200k comments using word clouds and other tools, conducted sentiment analysis to gain insights, resulting in a 15% increase in user satisfaction.
- **Product Research & Inspection:** - Regularly analyzed updates from over 20 provincial government service platforms (e.g., "Ganfu Tong") and compiled findings into research reports.
  - Collected and analyzed IP image application materials from various municipal governments to support feasibility decisions for designing "Qinwu Yuan" IP image.
  - Conducted a comprehensive inspection of over 300 government services on the integrated government service platform in Shaanxi Province (including Mini Program, APP, and Web).

Institute of Intelligent Rule of Law, Tsinghua University Online Dec.2023 - Jan.2024

Research Assistant in the Legal Knowledge Engineering Group

- **Text Extraction:** Utilized regular expressions to extract content from over 1,000 markdown files containing legal texts and judicial interpretations, converting them into JSON files with automated naming.
- **File Crawling & Filtering:** Designed and used comparison rules to filter out invalid or modified files based on crawled national law and regulation database files, enhancing RAG quality.

Fast Retailing (China) Trading Co., Ltd. Shanghai Mar.2024 - May.2024

Data Strategy Department Intern

- **Forecast Model Development & Optimization:** Predicted daily PLU outbound volume for T+7 days using the Prophet model, and smoothed data based on workdays and temperature ranges to capture significant temperature changes, improving the model hit rate by 62% to 0.47, matching the manual forecasting standard.
- **Data Processing & Analysis:** - Conducted data mining and found that the Chengdu, Tianjin, and Wuhan warehouses had lower MAPE for 7-day forecasts on Thursdays, recommending rescheduling warehouse restocking to Thursdays.
  - Processed and integrated products' price information of markdown and promotion using Pandas, and implemented automated ETL processes for future price query using COS, Airflow, and Tableau, reducing manual query time by 150%.
- **Tableau Dashboard Development & Maintenance:** - Cleaned and processed sales data for the B2B group purchasing business, and designed and completed weekly and monthly reports, sales analysis, and customer behavior analysis, improving data analysis efficiency by 30%.
  - Developed a real-time accuracy monitoring dashboard by invoking an outbound forecast model designed based on store plans.

Honors & Awards

- University-Level Scholarship (top 10%) Dec.2021&2022
- Uniqlo Scholarship (only 5 recipients in the university) Dec.2022
- Outstanding Student Leader (top 5%) Dec.2021
- Outstanding Student (top 15%) Dec.2022&2023
- Provincial First Prize in CMC (top 20%) Dec.2021
- Provincial Second Prize in CUMCM (top 20%) Dec.2022

Leadership & Extracurricular Activities

"Rookie Academy" Project (Volunteer Service) Sep.2020 - Jul.2021 (Leader)

- Organized weekly activities to provide free training for senior residents on how to use smartphones .
- Covered by over 10 media outlets, including the district government, Global Times, Xi'an Daily, Sohu.
- Awarded "Star of Public Welfare" Gold Award and awarded as an excellent project in the Urban Voluntary Service Project Competition by the Executive Committee of the 14th National Games in Xi'an.

Student Career Development Association Sep.2022 - Jul.2023

Alumni Liaison Department (Current Alumni Affinity Ambassador)

- Invited 5 alumnis and over 10 HR representatives to engage in career-related discussions .
- Organized 4 job interview sessions for graduating students to share experiences and valuable advice.