

Haoquan Zhou

✉ haoquanz@umich.edu · ☎ 1(734)834-8539 · in Haoquan Zhou

EDUCATION

University of Michigan, Ann Arbor, US Expected Jun. 2024

Master of Science in Information

Coursework: Data Manipulation and Analysis, Database Application Design, Data Visualization, NLP

Shanghai Jiao Tong University (UM-SJTU JI), Shanghai, China Expected Aug. 2023

Bachelor of Science in Electrical and Computer Engineering

Coursework: Intro to Algorithm, Computer Networks, Computer Vision, Intro to Data Science

EXPERIENCE

Ruijin-miHoYo Laboratory, Shanghai, China Sept. 2021 - Aug. 2022

Research Intern

- Exploring the field of Brain Computer Interface (BCI).
- Research on the topic of Machine Learning Based Depression Recognition Using Digital Devices
- Review relevant machine learning algorithms.
- Explore potential links between users' health information and depression symptoms.
- Design and write experiment protocols.

PROJECTS

US Commercial Aviation Industry Insight Sept. 2022 - Dec. 2022

Data Analyzer

- Explore the current operation condition of US commercial aviation industry based on international departure data set and city-pair airline market data set from US Department of Transportation.
- Use large scale data manipulation tools like Spark and MapReduce to analyze the data.
- Conduct data cleaning and data visualization, then predict the airfare with an accuracy over 90%.
- Provide suggestions for both aviation stakeholders and travellers.

Predict House Selling Price in Illinois Mar. 2022 - May. 2022

Model Developer & Data Analyzer

- Predict the house prices based on the 500K-records, 61-features data set from Cook County Assessor's Office (CCAO) in Illinois.
- Conduct data cleaning, data visualization, and exploratory data analysis (EDA).
- Implement a random forest regression model with 5-folds validation to predict house prices.
- Reach a low test error (almost half of the full score line).

Mining the Past and Envisioning the Future Feb. 2022

Model Developer & Programmer

- Implement a time series investment model in Python that combines traditional investment skills, classic ARIMA model, and novel methods like LSTM and reinforcement learning to pursue a better performance.
- Come up with a novel method using convex/concave shape to indicate whether it is a good point to sell/buy or hold.
- Win the Honorable Mention Prize in 2022 Mathematical Contest in Modeling (MCM).

SKILLS

- Programming: C/C++ (Linux), Python, Java, Ocaml, MATLAB
- Data Management: SQLite, MySQL
- Web Development: HTML5, CSS, Django
- Machine Learning: Sklearn, Pytorch