

Yuankai Tao

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Summary

Possess a comprehensive background in market research, which includes experience in questionnaire data collection, as well as statistical analysis and visualization of survey results.
Also have in-depth knowledge of pricing models, risk management, financial statement analysis, and time series analysis, among other topics.
Strong statistical knowledge with DS/ML experience in data mining and analysis projects and competitions

Skills and Courses

- **Relevant Courses:**Investment Analysis, Financial Statement Analysis, Data Science for Finance, Deep Learning Specialization(Coursera),C++ Programming(Extension)
- **Language and tools:**Python,SQL,C++,MATLAB,LaTex,Ms Office,PowerBI
- **Libraries/Frameworks:**Scikit-learn,Pytorch,Tensorflow,Numpy,Pandas,Matplotlib
- **Machine Learning:**Ensemble Learning(GBDT:XGB,LGBM,CatBoost), Classification(KNN,Random Forest,SVM),Regression Modeling(linear,Logistic,Sparse),Clustering Analysis(K-means,K-Prototype)
- **Data Science:**Time Series analysis, Data Mining, Data Analytics

Education

University of California, San Diego **Sept 2024 – Oct 2025**
Ms in Quantative Finance CA, USA
GPA:3.95 out of 4, Member of Rady's Finance club

Zhongnan University of Economics and Law **Sept 2020 – Oct 2024**
Bachelor in Accounting and Finance CHN
GPA:3.63 out of 4, Graduation with **Special Scholarship**(*Innovation and Entrepreneurship Award*)

Experiences

Research Assistant Intern, Haitong Securities – Shanghai China **Jan 2024 – May 2024**

- Compared the client's performance with peers to assess its competitive position using PowerBI and Ms.Excel
- Performed exploratory sentimental analysis and word Frequency analysis on multiple IPO review feedback documents provided by the exchange.

Intern in Financial Service Office(FSO), Ernst & Young – Beijing, China **Dec 2023 – Feb 2024**

- Utilized Python and Excel to analyze internal risk with financial and transaction data provided by Beijing Hyundai Motor Finance Co., Ltd.
- Contributed to optimizing the company's internal credit scoring model, enhancing its prediction accuracy
- Conducted detail test of the investment income of Beijing Chuang Fund Management Co., Ltd., which resulted in a change of approximately RMB 18 million to pre-audited figures

Audit Intern, Lixin Certified Public Accountants Co., Ltd. – Wuhan, China **Jun 2022 – Sept 2022**

- Drafted audit working papers and conducted vouching
- Participated in the half-year audit report project for Henan Longbai Group Co., Ltd.

Projects

Personal Assistant for Mr. Yan, JP Morgan Chase & Co– Online **July 2023 – Sept 2023**

- Helped to implement VBA scripts in Excel to automate the process of updating charts for Weekly Market Report
- Learned to use API to extract and analyze the data and text information from Eastmoney Financial Terminal.

Conditional Research Consultant, WorldQuant **Jan 2025 – now**

- Used Python together with WorldQuantBrain platform to simulate alphas
- **Currently rank 2801(Gold Level;Top 10.6%)** in WorldQuant Challenge
- **Currently rank 16(Gold Level;Top 3.1%)** in WallStreetQuants Alphathon2024, 5 alphas submitted; fitness 1.26

Jane Street Real-Time Market Data Forecasting– Kaggle Competition

Currently Silver Medal

- **Currently rank 139/3750; Top 3.7%**. Modeled with Pytorch-embeddingsNN + Resnet to make prediction using real-world data derived from Janestreet’s production systems; and we also wrote a simple baseline with lightgbm, xgboost and catboost to share in the kaggle community.

Mathematical Contest in Modeling(MCM) 2022

Price of Honorable Mention

Trading Strategies for Gold and Bitcoin

Problem C

- Utilized Box-Pierce test to detect white noise existing in the data of bitcoin and gold and determine if data had auto-correlation and verified the accuracy of the trend we predicted using wavelet denosing
- Established three models, RNN, BP neural network, and LSTM, and constructed the strategy via factor analysis

12th National College Students Market Research and Analysis Competition

National Third Prize

- Conducted a survey and analysis of the market share and acceptance of gender-neutral clothing in second-hand clothing markets among college students
- Conducted sentimental analysis with three types of data collected (textual data, e-commerce data, and questionnaire data), including 9609 pieces of valid textual data and 816 questionnaires
- Described the distribution of answers in questionnaires with T-SNE and conducted world frequency analysis