

# Hao (Alex) Zeng

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## EDUCATION

### University of Illinois Urbana-Champaign

Master's Degree in Business Analytics. GPA 4.0.

Illinois, USA

Aug 2023 – May 2024

### Zhongnan University of Economics and Law (ZUEL)

Bachelor's Degree in International Economics and Trade. GPA 3.68.

Wuhan, China

Sep 2018 – Jun 2022

## SKILLS

- **Certificate:** CICPA (Pass 1), ACCA(F1-F9)
- **Skills:** Proficient in MS Office, Wind, IFinD, Bloomberg, Thomson, Stata, Financial Valuation Model (DCF, LBO etc.)
- **Technique:** Python in Finance Analysis, Data Processing and Visualization, R, SQL, Tableau, MATLAB

## PROFESSIONAL EXPERIENCE

### Soochow Securities Co., Ltd.

Equity Research Summer Analyst, Power Equipment & New Energy Group

Shanghai, China

Jun 2023 – Aug 2023

- Managed large datasets with **1M** observations regarding over **153** materials for lithium batteries and terminal automobiles from **Bloomberg, S&P, and Moody's**. Visualized and analyzed demanding and pricing patterns by **Excel PivotTables** and **Python Matplotlib**.
- Conducted desk research on over **50** LiMnxFe1-xPO4 academical papers from **15** think tanks, and over **20** annual reports in battery industry. Evaluated layout strategies of the target companies by visiting over **30** industrial meetings and conferences. Forecasted a **5-8%** increase in the productivity of LiMnxFe1-xPO4 by 2024, prepared equity pitches and slides for investors.
- Provided robust investment decision data, strategic recommendations, essential guidance, and insights to clients, maximizing their investment potential.

### Taiping Fund Management Co., Ltd.

Fund Research Spring Analyst, Strategy & Product Department

Shanghai, China

Mar 2023 – Jun 2023

- Conducted data cleaning. Created interactive dashboards to analyze institutional clients' churn in **Tableau**. Contributed to the development of targeted retention strategies, which resulted in a **10%** reduction in the churn rate.
- Utilized **NumPy** and **Pandas** for data preprocessing and cleaning on weekly research data from fund markets. Analyzed IPO fund overview, issuance trends, policy compliance.
- Constructed quantitative **financial models (Monte Carlo simulation and Binomial Tree)** in **MATLAB** to analyze the relationship between the Debt-To-Equity ratio and the IRR of portfolio assets.
- Predicted the **5% CAGR** of the market size of Chinese mutual fund based on the historical information of fund issuance scale in 2020-2023, by **Python**.
- Participated in drafting the fund-design and prospectus. Compiled compliant documents for fund issuance under the CSRC.

### Haitong Securities Co., Ltd.

Strategy Research Winter Analyst, Strategy Department

Shanghai, China

Oct 2022 – Mar 2023

- Collaborated with senior analysts to design and implement a robust data architecture, using **SQL** to create fact tables, dimension tables, and data warehouses on **Snowflake Cloud**. Delivered historical rating analysis of over **30** industries one day before schedule, providing clients with timely insights for decision-makings.
- Executed daily monitoring on the stock market and industry allocation strategies using **Bloomberg Terminal**. Automzied daily trading data collection, analysis, reporting by **Python (Pandas, NumPy, Matplotlib)**, **Excel's VLOOKUP, PivotTables, Forecasting and Statistics Analysis Tools**, which resulted in a **50%** reduction in processing time.
- Assessed industry and sector valuations using **PE averages, historical percentiles, and 5-year price fluctuations**. Calculated the excess returns of the renewable energy industry to the SSE 300 Index, and industry ROE (TTM) within mining, battery, and EV manufacturing sectors to reflect real industrial profitability.

### Sunrise Private Equity Fund Management Co., Ltd.

Equity Research Summer Analyst, TMT Group

Shanghai, China

Jun 2022 – Sep 2022

- Conducted industry analysis, peer comparisons, strategy analysis and risk analysis for Sunrise Optical Technology (2382.HK) in published written format. Created comprehensive **10-year financial model** by studying past data and using different types of regression models.
- Applied the **DCF** model to valuation, deconstructed revenue into five segments like mobile lenses. Employed a top-down methodology to estimate market size for each business segment, factoring in lens shipment volumes, market shares, and lens penetration rates.
- Participated in the company's quarterly and yearly performance releases, obtaining crucial indicators like shipment volumes, unit prices, and gross profit. Calculated the average selling price (**ASP**) to derive the main revenue streams. Utilized regression models to derive the industry beta, to assess equity value of the company within several sensitivity analyses under different scenario planning matrix. (optimistic, natural, and pessimistic)

## PROJECTS

### Comparative Analysis of Real Estate Prices in China: Based on Regional and Policy Differences

Apr 2021 – Apr 2021

- Optimized the performance of various housing price predictive models such as **KNeighbors, Logistic Regression, SVM, Random Forest, and Neural Network in Python**. Recommended to the real estate price to use the random forest model for future predictions, increasing the accuracy of predictions by **10%**.

### Exploration of the Operation Path of New Agricultural E-commerce: Taking Duo duo Agricultural Garden as an Example

Jun 2020 – Jun 2020

- Analyzed and compared the factors like **Traffic indicators Page views (PV), Number of visitors (UV)** for agricultural company using **regression analysis** in R programming. Utilized **R libraries (ggplot2, e1071, rworldmap)** to create visualizations such as **boxplots, overlapping histograms, kernel density plots, quantile plots**, and Chinese agricultural producing area map visualization.

## ACTIVITIES AND LEADERSHIP

### Financial Management Association (FMA) Students Chapter at ZUEL

VP, External Executive Committee

Wuhan, China

Sep 2020 – Jun 2022

- Organized the regional competition of 2020 CFA Institute Research Challenge. Fundraised **¥20,000** from Zhong Bo Finance and Bank of China.
- Led the division arrangements, including setting up sponsorship groups, planning groups and liaison groups to achieve **FMA Superior Chapter Award**.