Alex (Haiwen) Liu
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EDUCATION

University of Michigan Sep 2018-Dec 2019
Master of Science in Quantitative Finance and Risk Management
Health Equity Research Certificate
Selected Coursework: Data Mining, Time Series Analysis, Financial Trading, Financial Modeling
Nanjing University Sep 2014-Jun 2018
Bachelor of Science in Material Physics
GPA (100 Scale): 87.8 Overall

INTERNSHIP EXPERIENCE

Industrial Securities **Shanghai, China**
Intern, TMT Equity Research Analyst, May 2018-July 2018
- **Data Processing:** Collected, updated and processed daily market data of 25 listed industry internet company that help and support seniors to conduct risk analysis by building CAPM models.
- **Coding & Forecasting:** Built and validated ARMA-GARCH model to forecast SSE Composite Index's implied volatility and VAR.
- **Research & Compliance Analysis**: Conducted research on Foxconn industrial internet company covering potential market shares, technology innovation, policy risk, supply chain; completed report over Foxconn list and impact over Chinese industrial internet industry.

Bank of Nanjing **Nanjing, China**
Intern, Investment Banking Department June 2017-Sep 2017
- **Due diligence**: Conducted due diligence on potential M&A transactions and investment targets in real estate and beverage sectors, including comparative analysis and analysis of the impact of macroeconomic factors; participated in a private placement note of local city construction company
- **Modeling:** Updated Discounted Cash Flow Models, Multiple Analysis, and Comparable Analysis and vetted the assumptions on earnings growth, profit margin, investment cycle, and other factors.

ACADEMIC EXPERIENCE

Project: The Factors That Affect The Price Of The Treasury Bond Futures
Feb 2017-Sep 2017
- Quantitatively analyzed the factors affecting the price of the treasury bond futures by R, including SHIBOR, broad money(M2), exchange rates, CPI, return rate of the treasury bond.
- Built statistical sophisticated models(ARCH, ARIMA)for price of treasury bond futures and forecast the price trend of the treasury bond futures using R and Matlab

EXTRA-CURRICULAR ACTIVITIES

- Volunteer, Young Volunteer Club, Nanjing University, China Sep 2016-July 2018
- VP, Association of Model United Nations, Nanjing University, China Sep 2014-July 2016

SKILLS

Programming:
R: Collected, updated and processed big data, conducted regression analysis, built and selected suitable models for price of treasury bonds.
C++: Built Monte Carlo simulation to calculate wave functions of Hydrogen and Helium Atom.
Python: Used natural language processing and debugged 10+ projects.
Matlab: Used Monte-Carlo Method to calculate a basket of options of correlated stocks. Used Hagen-West algorithm to compute instantaneous forward rate of US treasury bonds.

CERTIFICATES

FRM level 2, CFA level 1 candidate