BOCHAO LI

(608) 556-1742 | bochao.li@columbia.edu | https://www.linkedin.com/in/bochao-li/

EDUCATION

Columbia University New York, NY
Master of Science in Financial Engineering Expected Dec 2024
- Courses: Algorithmic Trading, Stochastic Models, Monte Carlo Simulation Methods, Optimization Models & Methods

University of Wisconsin - Madison Madison, WI
Bachelor May 2020
Bachelor in Statistics & Applied Mathematics (double major) GPA: 3.75/4.0.

RESEARCH EXPERIENCE

Idiosyncratic Momentum Trading Strategy with LSTM New York, NY
- Leveraged Python to collect daily stock prices of S&P 500 and perform statistical test and time series analysis to determine optimal momentum factor and look-back period to lead future price growth.
- Conducted thorough backtesting by building a long & short-momentum trading strategy. Assessed strategy's performance by investigating drawdown periods and performance during market sell-off.
- Further improved trading strategy by incorporating CAPM and Long-Short Term Memory model to isolate systematic risk and calculate idiosyncratic momentum factor with future prediction, which enhanced model's performance by significantly reducing volatility, resulting in a Sharpe ratio of 1.24.

PROFESSIONAL EXPERIENCE

Morgan Stanley New York, NY
Global Capital Markets Quantitative Strategist Intern Jun 2024 – Aug 2024
- Developed an advanced mapping algorithm in Python to accurately match ISIN numbers of bonds between two databases using pandas, achieving a 95% matching accuracy; enhanced the syndicate team's workflow by enabling verification of manually entered information with the results of the mapping algorithm.
- Conducted an in-depth analysis of Morgan Stanley-led bond issuances compared to competitor-led issuances by using the algorithm's matching result and leveraging Bloomberg pricing data to construct key performance metrics.
- Automated the mapping algorithm and generated comprehensive reports in Power BI for bankers to present to clients, contributing to a 30% increase in deal win rate and a revenue boost of $30 million.

Capital One New York, NY
Business Manager - Commercial Cards Nov 2022 - May 2023
- Led development of highly effective go-to-market strategies for Commercial & Small Business cards, resulting in an impressive $60 million in incremental revenue.
- Collaborated closely with research team to build a Random Forest machine-learning model applying company's financial and risk data, in order to better produce customer segmentation and predict price sensitivity, which optimized product suite offerings tailored to different customer segments.
- Employed Python to build a robust prediction model for customer post-activation purchase volume. Employed advanced techniques such as Lasso Regression and statistical analysis to perform feature selection and enhance model's performance. Achieved a substantial 20% improvement in purchase volume by targeting clients with high business revenue and longer credit history.

Citi New York, NY
Assistant Vice President - Senior Business Analyst Oct 2021 - Nov 2022
- Leveraged past customer financial data and credit risk models to devise targeted and segmented strategies, resulting in a remarkable 15% improvement in overall profits for two campaigns. Conducted rigorous experimental design and ARIMA time-series model for data-driven decision-making.
- Created value propositions for multiple marketing campaigns by examining key marketing performance data. Provided quantitative analysis and visualizations using various Python packages for efficient and higher-performing marketing campaigns, and successfully drove over $300 million in incremental balance.
- Utilized statistical techniques, including regression and experimental design, to optimize customer segmentation strategies. Employed tools using Python, SAS, and Tableau to leverage data analytics and visualization, resulting in improved profitability across various campaigns.

SKILLS

Programming Languages: R, Python, SQL, Java.
Data Visualization Tools: Excel, Power BI, Tableau.