Bowen Li

Atlanta, GA • 614-747-0448 • *bli498@gatech.edu* • www.linkedin.com/in/bowen-li-b5126a151

EDUCATION

GEORGIA INSTITUTE OF TECHNOLOGY — **Atlanta, GA**
Master of Science in Quantitative and Computational Finance — *January 2023-May 2024*
- GPA: 3.77
- Key Coursework: Fixed income Securities, Derivative Securities, Stochastic Process in Finance, Data Mining and Statistical Learning

Master of Science in Computational Science and Engineering — *August 2022-May 2024*
- GPA: 3.77
- Key Coursework: Introduction to Database Systems, Computational Science and Engineering Algorithms, Computational Problem Solving for Scientists and Engineers, Machine Learning

OHIO STATE UNIVERSITY — **Columbus, OH**
Bachelor of Science in Industrial and Systems Engineering — *August 2019-December 2021*
- GPA: 3.7
- Focus: Management Systems and Operations Research
- Key Coursework: Statistics, Stochastic Modeling and Simulation, Quantitative Models in Production and Distribution Logistics
- Key Project: Designed production layout and plan for Iron Pony, a motorcycle manufacturer, and provided layout, work schedule, and purchasing plan for Jeni's ice cream based on demand forecasting.

EXPERIENCE

GEORGIA INSTITUTE OF TECHNOLOGY — **Atlanta, GA**
Grader, Numerical Method in Finance — *January 2024–May 2024*
- Collaborated closely with the course instructor to align grading standards and provided detailed feedback to support student learning.
- Contributed to students' understanding of complex financial models and programming application in finance through meticulous evaluation.

SOOCHOW SECURITIES — **Changsha, China**
Quantitative Analysis Intern — *June 2023–August 2023*
- Developed sophisticated quantitative models, including a Hidden Markov Model (HMM), to analyze market dynamics and forecast trends.
- Performed in-depth portfolio analysis to evaluate and generate insights for optimizing investment strategies, assisting the research and investment team in making data-driven decisions.
- Conducted comprehensive data visualizations and authored detailed reports to communicate the model's findings and methodologies to senior advisors and stakeholders, enhancing the overall understanding of quantitative analysis within the team.

T. MARZETTI COMPANY — **Columbus, OH**
Six Sigma Project Intern — *January 2021–December 2021*
- Analyzed production data to identify critical issues and used Minitab and Excel for statistical analysis.
- Collaborated with the quality management team to address and resolve production issues, leading to a 15% improvement in production efficiency.
- Tested and optimized production settings to maintain production standards and improve overall production flow, reducing downtime by 10%.

OHIO STATE UNIVERSITY — **Columbus, OH**
Teaching Assistant, Computer Science & Engineering — *August 2020–December 2020*
- Provided constructive feedback on student assignments for course: Intro to Java, contributing to a thorough understanding of programming concepts.
- Mentored students struggling with course concepts, resulting in improved academic performance and increased student satisfaction.
- Facilitated interactive discussions, provided office hours for personalized guidance for the course.

PROJECT

GEORGIA INSTITUTE OF TECHNOLOGY — **Atlanta, GA**
FX Rate Prediction with Large Language Model — *January 2024–May 2024*
- Leveraged GPT-4 and NLP to revolutionize FX rate forecasting, enhancing prediction accuracy significantly over traditional methods.
- Integrated sentiment analysis results with other features into a Random Forest model, demonstrating NLP's potential in financial analytics.
- Analyzed the impact of market sentiment on currency movements, providing actionable insights and enhancing the interpretability of predictive models.

Predictive Maintenance Initiative for Wind Turbines — *April 2024–May 2024*
- Developed a predictive maintenance model using LightGBM for early detection of wind turbine component failures.
- Performed comprehensive time series analysis of operational data to detect patterns that signal potential failures, facilitating proactive maintenance decisions.
- Delivered significant cost savings by proactively managing maintenance operations, significantly minimizing downtime and associated costs.

Computational Finance — *November 2023–December 2023*
- Preprocessed and analyzed a 6,000-stock dataset using Python, ensuring data integrity through meticulous cleaning, normalization, and outlier elimination.
- Engineered and refined predictive models leveraging Logistic Regression and Linear Discriminant Analysis, focusing on mitigating overfitting and enhancing model reliability.
- Utilized a suite of Python libraries including Pandas, NumPy, scikit-learn, yfinance, and Backtrader, coupled with R Markdown, to execute in-depth data analysis, report crafting, and visual presentations.

Database System — *August 2022–December 2022*
- Pioneered the development of an EERD to fulfill intricate project specifications. Translated EERD into a comprehensive Relational and SQL Physical Schema, efficiently transforming and integrating a designated dataset into the relational database system.
- Formulated and executed SQL views, queries, and transactions to bolster a drone delivery database application, demonstrating adeptness in database manipulation and query optimization.
- Advanced the project scope by single-handedly engineering a Python-based Graphical User Interface (GUI) for the application, enhancing user interaction and operational functionality.

SKILLS

Programming: Python, MATLAB, C
Technical tools: Excel, Bloomberg, Minitab, SAS, mySQL
Certifications: Six Sigma Green Belt (Ohio State University)