Jesse Freitag

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EDUCATION

The University of Chicago — **Chicago, IL**
Master of Science in Financial Mathematics — **Expected December 2024**
- Courses: Portfolio Theory & Risk Management, Python, Option Pricing, Probability & Stochastic Processes

Stony Brook University — **Stony Brook, NY**
Bachelor of Science in Applied Mathematics & Statistics (GPA: 3.93/4.0) — **Graduated December 2022**
Bachelor of Arts in Economics
- Courses: Probability Theory, Mathematical Statistics, Introduction to Derivative Pricing, Data Structures and Algorithms, Differential Equations, Time Series Analysis, Multivariable Calculus

SKILLS

Computing: Python, Java, Jupyter, R, MS Office, Bloomberg Query Language (BQL)
Knowledge: Portfolio Management, Financial Markets, Statistical Modeling, Time Series Analysis, Econometrics

EXPERIENCE

GM Advisory Group — **Melville, NY**
Research Analyst Intern — **June 2021 – May 2023**
- Conducted financial machine research using Hudson & Thames' MLFinLab and the work of Dr. Marcos Lopez de Prado to properly identify false investment strategies and gained insight on how to improve the firm's strategies.
- Designed logistic and linear regression models to forecast Consumer Price Index, Unemployment, and Industrial Production in Python while recognizing statistical properties and limitations of time series data.
- Utilized Bloomberg Query Language in Jupyter and Excel to analyze market indicators and market conditions.
- Allocated high-net-worth clients' portfolios based on risk tolerance and goals using the firm's investment strategies.

Aflac Insurance Company — **Melville, NY**
Universal Intern (Remote) — **June 2020 – August 2020**
- Collaborated as a team to create a COVID-19 Dread Disease prediction model using logistic regression in R.
- Analyzed financial reports and presented data that would allow the company to capitalize on insurance premiums.
- Obtained a certification for a Series 17-52 New York State Accident and Health Insurance License.

AMS 315: Data Analysis – Department of Applied Mathematics — **Stony Brook, NY**
Teaching Assistant — **January 2022 – May 2022**
- Assisted approximately 160 students in a statistics course by conducting review sessions and weekly office hours.
- Course content included probability distributions, multi-variable regression techniques, and statistical theory.

TECHNICAL PROJECTS

Volatility Model (Pseudo-VIX Index) — **October 2022**
- Analyzed historical implied volatility of A-T-M SPX call/put options from 1990 to 2021 to create a model similar to the CBOE Volatility Index.

Markowitz Portfolio Optimization — **May 2023**
- Researched portfolio optimization techniques to better understand the difference between quantitative versus top-down macroeconomic portfolio allocation strategies.

EXTRACURRICULAR ACTIVITIES

Stony Brook University — **Stony Brook, NY**
Member, Quantitative Finance Club — **May 2022 – December 2022**
- Attended several conferences with other students and industry professionals in the quantitative finance industry.

Rank Leader, Stony Brook University Marching Band — **August 2019 – May 2021**
- Supervised over 20 band members and acted as a representative for the trumpet section during university events.

ADDITIONAL INFORMATION

Interests: Running, competitive GeoGuessr, bagpipes, piano, accordion, and learning new musical instruments.