Anton Rotach

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EDUCATION

Stevens Institute of Technology, School of Business — **Hoboken, NJ**
Master of Science in Financial Engineering | GPA: 4.0 | Dean's List — **December 2021**
Bachelor of Science in Quantitative Finance | GPA: 3.8 | Dean's List — **May 2021**

Finance Coursework: Derivatives, Stochastic Calculus, Financial Econometrics, Fixed Income Analysis, Market Microstructure Trading Strategies, Portfolio Construction, Investment Banking, Financial Statement Analysis, Applied Statistics

Computer Science Coursework: Advanced Time Series, Data Management in R, Risk Management in R, Financial Data Science, Database Design, Data Visualization Application, Statistical Learning, Machine Learning, Financial Technology

SKILLS

Programming: Python, R, SQL, Linux, Java
Software & Tools: Microsoft Suite (Excel, Word, PowerPoint), Tableau, Bloomberg Terminal (BMC certified), AWS
Certifications: Completed CFA Level 1

EXPERIENCE

Option Metrics — **March 2022 – present**
Quantitative Researcher — **New York, NY**

- Maintained and improved existing Black Scholes and tree models in Python that produced Equity and Futures option volatilities, Greeks, and volatility surfaces
- Developed new models in Python that created more intricate data, such as option implied dividends and option implied betas
- Created a simple and delta-neutral equity backtester using Python and SQL for sorting and double sorting factor portfolios
- Worked on factor creation and research that stemmed from intraday signed option volume via the Lee-Ready algorithm
- Designed and published numerous systematic cross sectional trading strategies with significant alphas in white papers
- Conducted alpha research leveraging machine learning techniques to identify predictive signals within option market data

Bloomberg LP — **June 2021 – March 2022**
Equity Data Analyst — **Princeton, NJ**

- Cleaned, processed, and uploaded earnings data for a portfolio of 900 tech companies using proprietary software
- Designed machine learning models in Python to perform quality control to ensure accuracy of financial statement data
- Created data quality scripts in Python that compare Bloomberg data to exchange data scraped daily from exchange websites

Research Papers

The Implied Bet Against Beta (IBAB) Factor — **May 2023**

- Developed a model in Python to extract forward looking implied betas from option implied volatilities
- Generated backtests to prove our new factor outperforms the traditional BAB factor which uses historical beta
- Proved that beta neutralizing via implied beta produces a realized beta closer to 0 than historical beta

Using Senior Management Trades to Predict Stock Returns — **October 2021**

- Leveraged the Beautiful Soup package in Python to scrape Form 4 disclosures from the SEC website filed by senior management
- Used information inside these forms to create a random forest machine learning model that outputted trading signals
- Converted the model into an automated trading strategy, proved a significant 5 factor Fama-French alpha and 3+ sharpe ratio

LEADERSHIP EXPERIENCE

A Grade Ahead — **August 2017 – April 2020**
Curriculum Director — **Hoboken, NJ**

- Pitched a new programming curriculum to be included into a growing student tutoring company
- Worked alongside the owner and developed my leadership skills by implementing a 12-week curriculum about coding in Java for kids age 8-15