Takahiro Aiki

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Education

New York University – Leonard N. Stern School of Business New York, NY
BS in Honors Mathematics and Finance Cumulative GPA: 3.93/4.00 *Expected May 2027*
• **Relevant Coursework:** Linear Regression Forecasting, Linear Algebra, Honors Theory of Probability, Discrete Math, Multi-Variable Calculus, Principals of Financial Accounting, Analysis, Microeconomics
Shibuya Senior High School Tokyo, Japan
High School Diploma Cumulative GPA: 4.93/5.00, SAT: 1590 *Graduated Mar 2023*
• **Honors/Awards**: Honors English (all years), Cum Laude, Dean's List, Speaker at Graduation
• **Relevant Coursework:** Calculus, Combinatorics, Statistics, English, Advanced Physics, Chemistry, History

Professional Experience

Blockhouse Capital **New York, NY**
Quantitative Research Intern *May 2024 - Present*
• Incorporated academic papers on stochastic control and calculus to model the expected slippage of trades
• Managed a team of 4 people to construct strategies for reducing slippage when trading options and equities
• Applied machine learning models and performed data analysis in Python to construct and validate strategies

Leadership & Extracurricular

Quantitative Finance Society **New York, NY**
Quantitative Analyst *Sep 2023 - Present*
• Created monthly pitches that exploited market phenomenon through trading according to quantitative traits
• Gained exposure to long/short and macroeconomic trading strategies through the club's weekly meetings
• Performed data analysis trades in Python using market data, statistical processes, and quantitative estimators
Business Analytics Club **New York, NY**
Quant Team Member *Sep 2023 - Present*
• Created a data analytics project that applied multivariate linear regression and hypothesis testing to markets
• Engaged in workshops focused on probability theory, combinatorics, financial math, and trading strategies
• Competed in inter-club trading, programming, market-making, and investing competitions during meetings
Stern Program of Undergraduate Research **New York, NY**
Undergraduate Research Assistant *Jan 2024 – May 2024*
• Worked under Professor Junpei Komiyama to research multi-agent influence diagrams and their application
• Created reports on relevant academic papers to present to Professor Komiyama and develop research topics
• Decreased the time complexity of solving decision trees by applying learned concepts in influence diagrams

Personal Projects

Predicting Seasonality with Long-Term Short Memory *May 2024 - Jul 2024*
• Observed cyclicality in XLY (SPY Consumer Discretionary Sector ETF) through time series decomposition
• Trained model on 10 years of data and traded 2 years for 18.75% annualized returns and 1.29 Sharpe ratio
Tendencies for US Equities to Trend in Different Regimes *Jan 2024 – Apr 2024*
• Found tendencies for US equities to trend in risk-averse and risk-seeking regimes and made a trend-based strategy that dynamically changed the notional amount traded based on the perceived risk-appetite at the time
• Optimized for trade sizing and target volatility, resulting in 16.28% annualized returns and 1.58 Sharpe ratio

Additional Information

Skills: Competitive Math (top 50 in Japan Math Olympiad), Python, Pandas, Bloomberg, Word, Minitab
Interests: Watching/Playing Basketball, Chess, Poker, Cooking, Traveling, Violin, Soccer, Sightseeing