KENJI HEWITT

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EDUCATION

MSc. Applied Mathematics *September 2019 - Present*
Ryerson University

· Coursework: Applied Statistics Analysis, Analysis and Probability, Discrete Mathematics and its Applications, Advanced Numerical Analysis.

BSc. Financial Mathematics *September 2015 - April 2019*
Ryerson University

· Coursework: Statistics, Financial Accounting, Dynamic Systems/Differential Equations, Stochastic Calculus, Computational Analytics, Fixed Income/Derivative Instruments Analysis.

TECHNICAL SKILLS

· Cloud Computing Resources (AWS - EC2, Lightsail, Lambda, S3/S3 Glacier, Athena).

· Programming: 2 years of Python & Java experience, 4 years of MATLAB experience.

WORK EXPERIENCE

Data Analyst - Aquanow *April 2019 - June 2020*

- Automated data acquisition, aggregation, cleanup and analysis processes using services on AWS (Amazon Web Services - EC2, S3, Lambda).
- Created web crawler for daily data scraping from cryptocurrency exchanges (Using Exchange API and Python - Beautiful Soup).
- Automated report generation for regulatory purposes (Python/LaTeX - PyLaTeX).
- Integrated business data into dashboards to monitor performance/statistics (Python - Dash).
- Produced ad-hoc reports and documents for senior management.

Research Assistant - Ted Rogers School of Management *April 2019 - September 2019*

- Data Extraction & Aggregation: Created web scrapers with Python (Beautiful Soup) to obtain financial & economic data from multiple sources.
- Data Cleaning - Preprocessed data using Python (Pandas) to support multiple research projects.
- Built time series models to forecast financial indicators and create risk analysis reports.

Research Assistant - Department of Chemistry & Biology - Ryerson *Feb 2020 - Aug 2020*

- Utilized quantitative techniques (e.g hypothesis testing, cluster analysis) to analyze how student performance varied when course content delivery methods were modified.
- Analyzed student surveys to determine what content delivery methods were favored/unfavored.
- Produced reports to summarize findings by highlighting the strengths/weaknesses of each teaching method.
- Developed new teaching methods to maximize content retention in future undergraduate cohorts.

Teaching Assistant - Ryerson University *September 2019 - Present*

- Held weekly tutorials for undergraduate students to cover class material.
- Administered and graded quizzes on a weekly basis.
- Maintained a safe and supportive learning environment for classes up to 45 students.

PUBLICATIONS

Jeon Y, Samarbakhsh L, Hewitt K. *Fragmentation in the bitcoin market: Evidence from multiple coexisting order books.* Finance research letters. Published 06/01/2020.

· Investigates how fragmentation affects the Bitcoin market and costs associated with market orders by exploring the consolidated order book of five major exchanges. Suggests that a consolidation tool, such as a smart order router, can be effective in reducing the cost of trading.

RESEARCH EXPERIENCE

Undergraduate Thesis: Financial Performance of Alternative vs Traditional Energy Firms using a multi-period asset allocation model

· Conducted Markowitz mean-variance and CVaR analysis using MATLAB to solve non-linear programs with short-selling constraints and applied the model for portfolio rebalancing purposes.

· Developed dynamic code to perform out-of-sample testing (back-testing) to measure portfolio performance with real stock market data.

· Compared the risk-adjusted returns of alternative energy firms against traditional energy firms using the Sharpe Ratio and suggested potential government policies that may help the former generate competitive returns.

EXTRA-CURRICULAR

Rotman International Trading Competition

· Represented Ryerson at the 2019 Rotman International Trading Competition as a competitor. Participated in the Arbitrage (Options) and Fixed Income (Bonds) cases.

· Employed risk metrics such as the Altman Z-Score model to forecast potential changes to a companies' credit rating and identified mispricing opportunities.

· Generated profits while managing exposure to market risk by taking positions in multiple bonds to reduce the idiosyncratic risks associated with each bond.

ACADEMIC ACHIEVEMENTS

· Graduated with Distinction for Bachelors Degree.

· Received Dean's List award in the 2nd, 3rd, and 4th year of Bachelors Degree.

· Received a Mitacs Accelerate Fellowship award for Graduate Students worth $15,000.