KENNETH ZHANG

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EDUCATION

University of Waterloo *May 2027*
Bachelor's of Computer Science., Data Science Specialization
GPA: 4.0/4.0
Related courses: *Applied Linear Models, Stochastic Simulation Methods, Stochastic Processes I, Stochastic Processes II, C++ Concurrent & Parallel Programming, Algorithms, Machine Learning*
Graduate Courses: *CS 676 Numerical Methods for Financial Modelling, CS 679 Neural Networks*

EXPERIENCE

Squarepoint Capital *November 2024 - Present*
Quantitative Research Analyst New York, NY

· Developed alpha strategies for trading 0DTE SPXW options in the CBOE open auction by forecasting open-to-close SPX realized volatility using intraday volatility estimators
· Conducted trade execution research by building a logistic regression-based fill probability model for equity options, optimizing limit order placement, spread crossing decisions, and execution algorithms to improve fill rates and reduce slippage using historical market data
· Built equity research pipelines in Python using Pandas, NumPy, and scikit-learn to analyze pricing, factor exposures, and earnings data for alpha generation
· Performed single stock research by analyzing earnings revisions, fundamental ratios, and sentiment indicators to identify mispricings and inform systematic trading strategies
· Engineered alpha factors for single stocks by leveraging alternative data, analyst sentiment, and price-volume relationships, integrating signals into multi-factor equity models

Rothschild & Co *Apr 2024 - Aug 2024*
Quantitative Research Analyst New York, NY

· Developed machine learning pipelines to enhance predictive accuracy for time-series datasets, implementing feature engineering, hyperparameter tuning, and cross-validation techniques
· Engineered high-performance C++ modules for statistical modeling and time-series analysis, optimizing computational efficiency for large-scale financial datasets
· Designed and implemented C++ data structures for real-time market data processing, leveraging multithreading and memory-efficient algorithms to minimize latency
· Integrated C++ and Python workflows to streamline research pipelines, enabling seamless execution of backtests and signal generation across asset classes

PUBLICATIONS

Lag time between state-level policy interventions and change points in COVID-19 outcomes in the United States
Patterns: Cell Press *Jun 18, 2021*
Analyzed the lag time between state policies and changes in COVID-19 outcomes using a stepwise drifts random walk model and change-point detection algorithm.
DOI: 10.1016/j.patter.2021.100306

Association of temporary Environmental Protection Agency regulation suspension with industrial economic viability and local air quality in California, United States
Environmental Sciences Europe *Apr 21, 2021*
Investigated EPA regulation rollbacks' impacts on industry employment and air quality using machine learning and statistical tests.
DOI: 10.1186/s12302-021-00489-9