Brenton Law

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WORK EXPERIENCE

Optiver Chicago, IL

Trading Operations Analyst Jul 2023 - Aug 2024

- Spearheaded automation initiatives by developing a Python-based pricing pipeline, streamlining market entry processes and enhancing trader efficiency by 5+ minutes every morning
    - Engineered tooling leveraging PostgreSQL to optimize quoting for new expiries, ensuring market edge capture
- Designed and implemented a robust data pipeline for parsing execution logs into S3, enabling proactive identification of application performance issues and configuration anomalies
- Conducted data analyses to optimize exchange protection strategies, minimizing edge missed on erroneous bulk deletes and mitigating opportunity cost
- Assessed third-party data efficacy through statistical analysis, enhancing accuracy in predicting true company event timings, forecasting and generating summary statistics for over 70+ symbols
- Managed production simulations of systematic trading application in C, conducting research and backtests to enhance success rates and maximize profits in real world environments

Quantitative Trader Aug 2022 - Jul 2023

- Underwent rigorous options trading course, playing mock trading games and scoring highly on exams
- Traded on the Single Stock Options financials desk and Asian Trading Hours desk both on the screen and with brokers
    - On SSO, traded outrights and spread on basket of seven financial stocks; on ATH, primarily responsible for the entire S&P 500 and Nasdaq books with experience trading treasuries
- Worked on multiple projects such as investigating efficacy of Order Insert Retreats in illiquid markets, fleshing out revamped KPI framework for Global Trading Hours, and writing a script to properly align settlement calendars

Belvedere Trading Chicago, IL

Junior Trader Intern Jul 2021 - Aug 2021

- Studied options theory coursework with on-desk assignments and exams, scoring in top three of intern class
- Utilized OneTick queries in Python to identify relationships between the firm's edge retention and market volatility via statistical models and visualizations
- Worked on various projects in JupyterHub on desk rotations including pulling edge retention statistics with greeks to inform real-time trading decisions and algorithmically identifying repeat order flow

UC Berkeley Statistics Department Berkeley, CA

Undergraduate Research Assistant May 2020 - Feb 2021

- Used Matlab to implement novel RODE and SDE methods for one- and two-dimensional applied neuron problems with colored noise by using lasso regression to estimate density functions
- Wrote convergence study scripts to evaluate speeds and accuracies for solutions of various problem formulations
- Optimized application of algorithms by testing various approaches to speeding up performance of computation involving fine discretization meshes and large spatial-temporal matrices

EDUCATION

University of California, Berkeley Class of 2022

B.A. Applied Mathematics, B.A. Statistics GPA: 3.92

Relevant Coursework: Data Structures and Algorithms, Efficient Algorithms and Intractable Problems, Introduction to Machine Learning, Theoretical Statistics, Analysis of Time Series, Advanced Matrix Computations