Luis Victoria

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Work Experience

Production Engineer Feb 2023 - Present

Bloomberg LP

- Latency Optimization: Maintained strict performance targets of < 6ms median and < 250 max latencies for 99.99% of tick data, ensuring reliable operations across a system handling ~350 billion daily ticks.
- Global On-call Lead: Acted as the primary contact for the Ticker Plant system during 24/7 on-call rotations, leading remediation processes for critical incidents like exchange outages, hardware failures, and performing synchronization tasks to minimize client impact.
- Capacity Planning: Spearheaded evaluations for transitioning disaster recovery infrastructure from 36-core to 56-core machines, leading to projected savings of ~\$8 million USD while meeting compliance standards.
- Latency Monitoring Enhancements: Singlehandedly rewrote and designed a critical high performance per-tick instrumentation tool in C++, delivering real-time tick path latencies with minimal runtime overhead.
- Software Rollout Stability: Co-developed a product to identify and mitigate performance regressions from bad deployments by leveraging Bayesian Online Changepoint Detection, enhancing confidence in shipping and catching regressions in new tick-type rollouts.
- Storage Prediction Tool: Independently designed and implemented a Python tool to forecast machine storage use, deployed across 750 production machines to proactively set off alarms before reaching capacity limits.
- **Proactive Automation**: Automated various quality control procedures to verify machine synchronization for non-standardized production environments, reducing manual processes averaging 8 minutes down to a single click.

Quantitative Developer Intern

May 2019 - Aug 2019

Farringdon Asset Management

- Back-testing Enhancements: Extended the firm's back-testing engine to include cryptocurrency asset analysis by integrating new data pipelines using CCTX and Binance, enabling quantitative evaluation of crypto markets.
- Automation with Bloomberg API: Reduced time to generate client portfolio analysis by 50% for the portfolio management team using information from PORT<GO>
- Technical Research: Leveraged Bollinger Bands and Stochastic Oscillators to support quantitative decision-making on biomedical pharmaceutical startups.

Education

Business and Computer Science

Sep 2018 - Dec 2022

University of British Columbia

- Relevant Coursework: Machine Learning & Data Mining, Advanced Algorithmic Design, Advanced Relational Databases, Theory of Computation, Advanced Software Construction, Functional & Logic Programming, Matrix Algebra, Empirical Economics, Calculus III, Information Systems Analysis & Design
- **Key Projects**: Automatic Function Composition (<u>repo</u>), Javascript Chess AI w/ Minimax (<u>repo</u>), Interactive Coding for Kids using NLP (<u>repo</u>), Prototype Bitcoin Payment Processor (<u>repo</u>)
- Awards: Blockathon 2019 Champion, Sauder Entrepreneurial Prediction Market 2022 Champion
- Extracurricular Activities: Ilios Investment Club Head of Technology

Volunteer Work

- Fundación ManoloNet: Developed a Codecademy-like webpage via Django, teaching prospective blind teenagers Python.
- Club de Niños y Niñas de México: Implemented HTTPS using Let's Encrypt and prototyped a redesigned front page.

Skills

- Fluent Languages: English, Spanish
- Personal Interests: Football Center Forward (Singapore Div 1 Champion, Vancouver Div 2 Champion), Basketball Point Guard (Singapore U21 Club Champion), Golf (18 Handicap), Chess (2000 ELO on Lichess bullet)