# Luis Victoria

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## Work Experience

#### **Production Engineer**

Bloomberg LP

Feb 2023 - Present New York, NY

- Latency Optimization: Maintained strict performance targets of < 6ms median and < 250ms max latencies for 99.99% of tick data, ensuring reliable operations across a system handling ~350 billion daily ticks.
- Global On-call Lead: Led 24/7 on-call rotations, resolving critical incidents such as exchange outages and system failures to mitigate client impact.
- Low-Latency Tick Instrumentation: Developed a per-component latency instrumentation system in C++11, replacing a legacy setup reliant on artificial metric ticks while handling ~350 billion daily ticks with negligible overhead.
- Capacity Planning: Spearheaded disaster recovery evaluations using Linux cgroups to optimize resource allocation, transitioning from 36-core to 56-core machines instead of adding more machines per cluster and achieving projected savings of ~\$8 million USD.
- Software Rollout Stability: Co-developed a Bayesian Changepoint Detection tool to catch performance regressions preproduction (e.g., 40% database slowdown, 30% tick-type slowdown)—averting outages and increasing release confidence.
- Storage Prediction Tool: Independently designed and implemented a Python 3 & PostgresQL 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

Singapore

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**

Bachelor of Commerce - Sauder School of Business, University of British Columbia

Sep 2018 - Dec 2022

Vancouver, BC

- 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: <u>Automatic Function Composition</u>, <u>Javascript Chess AI via Minimax</u>, <u>Interactive Coding Environment for Kids using NLP</u>, <u>Prototype Bitcoin-to-Fiat Payment Processor</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.
- Technologies: C++11, Python 3 (NumPy, Pandas), PostgresQL, Docker, Git, Unix Commands, Bloomberg Terminal
- Personal Interests: Football Center Forward (Singapore Div 1 Champion, Vancouver Div 2 Champion), Basketball Point Guard (Singapore U21 Club Champion), Golf (18 GHIN Handicap), Chess (2000 ELO on Lichess Bullet).