Xinyi(Leo) Wu

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Education

THE UNIVERSITY OF CHICAGO Chicago, IL
Master of Science in Financial Mathematics Expected Dec 2020
- Current Courses: Option Pricing, Portfolio Theory & Risk Management, Python for Quantitative Finance

NORTHWESTERN UNIVERISITY Evanston, IL
Master of Science in Electrical Engineering Mar 2019
- Courses: High Performance Computing, Machine Learning and Deep Learning, Random Process, Stochastic Simulation, Financial Time-Series Analysis, Linear System Theory
- Minor: Scientific Computing in Engineering Science and Applied Mathematics Department

SHANGHAI JIAO TONG UNIVERSITY Shanghai, China
Bachelor of Science in Electrical and Computer Engineering Aug 2017
- Courses: Digital Signal Processing, Linear Algebra ,Operating System, Database System
- Awards: Dean's List in 2016-2017 Fall Semester; Teaching Assistant in Discrete Mathematics and Cryptography

Experience

COGNITIVE AI TECHNOLOGIES CO. LTD Chicago, Illinois
Cryptocurrency Developer Intern July-Sep 2019
- Compared network delays in multiple AWS regions to determine the most immediate tick-level data terminal
- Developed a C++ trading execution model and implemented high frequency trading strategies
- Created a trading API with python, connected it to AWS instances with ssh and used redis as message queue to send and receive signals to/from the distributed trading system

SHENWAN HONGYUAN SECURITIES CO. LTD Beijing, China
Quantitative Developer Intern Jun-Sep 2018
- Maintained an over-the-counter option trading system by tracking abnormal processes and updating configuration files through Linux Bash to achieve stable minute-level data acquisition
- Designed a secure local database system with an interface connected to a third-party data source using Pandas, and reduced time consumption of a single request of data pre-processing by 70% with Numba
- Explored portfolio combinations of futures, achieving over 95% correlation and incorporated them into pair trading strategies, resulting 3+ Sharpe ratio and ~5% maximum drawdown

INTEL ASIA PACIFIC RESEARCH AND DEVELOPMENT CO. LTD Shanghai, China
Software Engineering Capstone Project May-Aug 2017
- Led a five-member team in implementing a video encoder test suite based on Intel microprocessor
- Created bash script samples and XML parameter database, and encapsulated them into a control program in Python
- Incorporated complex tests into a user-friendly interface with PyQt module and simplified operability

Projects

BLOCKCHAIN SPEED-SECURITY TRADE-OFF ANALYSIS Evanston, IL
Graduate Research Assistant Apr 2018 - Mar 2019
- Optimized legacy Bitcoin network to minimize wastage of physical communication capacity, achieving minute-level transactional confirmation speed within given security bounds
- Brainstormed potential attacker's double-spending strategies and developed prevention solutions with stochastic work

Additional Information

Computing: Proficient in C/C++, Python, Bash Script, SQL, Excel, Matlab, LaTeX. Intermediate in Java, Verilog, VBA

Leadership: Organizer of the first Northwestern University Chinese-US Cooperation Forum (2019); Cryptocurrencies and Blockchains Conference Participant (2018); IEEE ICC Fellowship (2017); Shanghai Jiao Tong University Student Orchestra Second Class Violin Player

Other Awards: The Mathematical Contest in Modeling - Meritorious Prize (2016); Chinese Mathematics Olympiad - Second Prize in Beijing (2012)

Interests: Violin, Chess, Orienteering, Skiing, Biking, PES, Band Vocal