Xavier Lu

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EDUCATION

CORNELL UNIVERSITY
B.S., Computer Science
Aug 2018 - May 2022
GPA: 3.7
Minor in Operations Research

PRINCETON UNIVERSITY
Student of Special Status
Dual Enrollment w/ High School
2017 - 2018

COURSEWORK

CORNELL
Operating Systems
Analysis of Algorithms
Open Source Software Engineering
Stochastic Processes
Financial Eng. w/ Stochastic Calc
Futures, Options, & Financial Deriv.

PRINCETON
Algorithms and Data Structures
Algorithms for Computational Bio.

SKILLS

LANGUAGES
Proficient (3+ years):
Java • JavaScript
Python • SQL
Familiar with (1 year):
OCaml • TypeScript
C# • C • Bash

TECHNOLOGIES
React • React Native • Redux
Git • Flask • Express • Django
AWS

AWARDS
Fifth Place @ Bloomberg CodeCon Cornell Qualifier

USA Computing Olympiad Platinum

EXPERIENCE

COINBASE | Software Engineer Intern
May 2021 –August 2021 | San Francisco, CA
- Excited

AMERICAN EXPRESS | Software Engineer Intern
July 2020 –August 2020 | Remote | .NET, C#, React, Microsoft Power
- Optimized migration time by designing and developing a real-time metrics dashboard that takes data from internal cloud migration to provide key insight and analytic. In production.
- Improved efficiency of returning to office by digitizing CDC-required daily attestation that replaces manual effort with React and Microsoft Power apps. In production and used by all colleagues in NYC office.

CORNELL UNIVERSITY | Software Developer
Sept 2019 –Nov 2019 | Ithaca, NY | pandas, matplotlib
- Redesigned the reporting analytic backend for the midterm course evaluation system
- Streamlined data transformation pipeline from messy survey data to clean reports by identifying data processing bottleneck and revamping the algorithm

FIRST MANHATTAN CO. | Quantitative Developer Intern
May 2019 –Aug 2019 | Shenzhen, China | numpy, pandas, scipy
- Improved seasonality trading performance for a $16B AUM fund by analyzing correlation between pairs of futures using inferential statistical analysis
- Implemented trading factor models for Chinese equities and futures and back-tested my models with proprietary system

PROJECTS

BLACKJACK MONTE CARLO SIMULATOR React, Flask
https://xavierlu.github.io/blackjack-simulator/
- Different casinos have different blackjack rules. This webapp allows users to test their adjusted basic strategy by simulating with thousands of hands and analyze the long-run performance on adjusted rules

ORDERBOOK MIDPRICE PREDICTION Python, AWS, SVM
- Forecast midprice movement of limit orderbook on KuCoin ETH-USDT pair
- Developed a system of Python scripts that collects orderbook data every minute, stores them in AWS RDS, calculates features (eg. imbalance) to feed to SVM, and connectors to place orders with KuCoin API
- References this research paper

LEADERSHIP

CORNELL BLOCKCHAIN | Co-President
- Led and developed a proof-of-concept central bank digital currency (CBDC) project from scratch in JavaScript
- Implemented API endpoints with Express and hosts blockchain data in AWS RDS MySQL database. Front-end written in React