Yun Han Xiao

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github.com/hanburger97

skills

general: Git , Agile, CI Development Model
language: C/C++, Python, R, Javascript (NodeJS ES6), Bash
frameworks/libraries: XG Boost, PyTorch, Tensorflow, Apache Kafka, CUDA, Pandas
tools: Docker , Apache Zookeeper, CMake, Jupyter Notebook, RStudio / Sh

experience

Intact Financial Corporation Data Lab Intern   May 2018 – August 2018

- Built a custom in-house library for data modeling within a statistical learning pipeline
- Reduced runtime for training and cross-validation of XGBoost models by integrating Dask, a distributed computing framework in Python
- Applied software engineering design to distributed cross-validation algorithms with the cooperation of actuaries.
- Built a fault-tolerant and high-availability software infrastructure for the data lab team using Docker swarm.
- Optimized load-balancer algorithms for session balancing between RStudio Pro instances in the computer cluster.

Nuance Communications Canada QA Automation Intern   May 2017 – August 2017

- Reduced overhead of load testing by moving away from JMeter to a custom multi-threaded test framework monitored in real-time using NetData
- Automated server configurations for test cases by building a REST API in ExpressJS that injects bash commands during test case setup.
- Managed testing VPS environment configuration and engine set-up
- Gained significant insight on test-driven development by implemented automated testing scripts with JUnit and Unittest

Wedo Services Software Engineering Intern   July 2016 – October 2016

- Integrated quick quote feature that calculates surface area by coloring a canvas layered over a satellite image
- Designed and built a service chatbot using Facebook's Messenger API over Webhooks
- Built reactive interfaces with Meteor JS's two-way data binding's protocol (DDP) over the WebSocket.

projects

Data Analysis on implied volatility for commodities   July 2018 - present

- Data Mining: pulled historical at-the-money bar data (50 delta) from ECBOT through Interactive Brokers' API in C++ on ZC (Corn Futures) options expiring one month before the underlying's expiration
- Feature Engineering: Compiling risk-free rate (LIBOR/OIS), time to expiration in years, etc. for each timestamp (bar). Computing Implied volatility for each bar according to Black's model

education

University of Waterloo

Bachelor's in software engineering, minor in Computational Mathematics   2017- 2022