Zhiyan Foo

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github.com/zhiyanfoo

EXPERIENCE

Quantcast
Singapore

Software Engineering Intern
March 2017 - July 2017

The Company: Quantcast uses big data to target advertisments at an online audience.

The Team: Ad Services Engineering team: responsible for the data generation of advertising campaigns and its distribution to the real-time bidding (RTB) system.

The Projects

- Worked on improving performance of the sharder: a component that split the master configuration file so that bidding engines in different geolocations only received the necessary data.
- Benchmarked performance of the generation of RTB configuration files, identified bottlenecks, and proposed and implemented performance improvements.
- Added in-depth logging and improved exception handling of the sharding process.

Singapore Armed Forces
Singapore

Conscript – Army
Feburary 2015 - Feburary 2017

EDUCATION

University of Waterloo
Waterloo, CA

Candidate for Bachelors of Mathematics
August 2017 – Present

PROJECTS

crunch-shake: A python library that evaluates scripts on the Bechdel Test and other similar metrics.

Source Code : `github.com/zhiyanfoo/crunch-shake/`.

LANGUAGES

Proficient: python (5+ years). **Familiar:** Haskell; C, Java, Racket, LaTeX.

ADDITIONAL COURSEWORK

Real Analysis, Convexity and Optimization
Harvard Extension School

Upper-division pure math course focused on optimization problems with convex sets, normed infinite-dimensional vector spaces, and convex functionals.

Learning From Data
Caltech Telecourse

Introductory Machine Learning course focused on mathematical rigor. Machine Learning algorithms built from scratch include Percepton with Stochastic Gradient Descent, hard-margin Support Vector Machines and Logistic Regression. For hard-margin SVM, an external convex optimization package was used.

Source Code : `github.com/zhiyanfoo/caltech-machine-learning/`

Algorithms on Strings
Coursera, University of San Diego

String compression and search algorithms e.g. Suffix Trees, Burrows-Wheeler Transform and Knuth-Morris-Pratt.

I've been taking online college courses in addition to school or work since I was 16. It's how I started programming. Complete list of additional coursework done can be found at `zhiyanfoo.github.io/learning/`.

EXTRACURRICULARS

Captain of Intramural Futsal Team (Casual level). Haskell Club Founder (not affiliated with the university).