Zhiyan Foo

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EXPERIENCE

Quantcast   Singapore

Software Engineering Intern   *March 2017 - July 2017*

Realtime Bidding Configuration: Service that set the configuration file for Quantcast's bidding engines.

- 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.
- Also worked on improving performance of the sharding of black and white listed domains.
- Added in-depth logging and improved exception handling of the sharding process.
- Identified slow and extremely variable performance when the configuration files where being shipped to the bidding engines

Singapore Armed Forces   Singapore

Conscript – Army   *Feburary 2015 - Feburary 2017*

LANGUAGES

(extensive) python (5+ years); (learning) Haskell; (basic level) C, Java, Racket, LaTeX.

ADDITIONAL RELEVANT 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.

Complete list of additional coursework done can be found at `zhiyanfoo.github.io/learning/`.

PROJECTS

crunch-shake: A python library that evaluates scripts on the Bechdel Test and other similar metrics.
Source Code : `github.com/zhiyanfoo/crunch-shake/`.

EDUCATION

University of Waterloo   Waterloo, CA

Candidate for Bachelors of Mathematics   *Aug. 2017 – Present*

FUN

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