Zhiyan Foo

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PROGRAMMING SKILLS

LANGUAGES – Python, Typescript, Haskell, Rust, C/C++

TECH/FRAMEWORKS – *Nix, React/Redux, Flask, Django, Express, MySQL, PostgreSql, LaTeX, Git, AWS(EC2, S3)

EXPERIENCE

Setter
Full-Stack Developer Intern

Rust, Typescript

Jan 2019 - April 2019

- Rewrote critical parts of the Node backend in Rust, e.g. transactional email handling, realtime quote editor and service payment endpoints.
- Helped implement CI/CD (Travis, Docker) for microservices and investigate moving from GCP to AWS.

Got It
Software Engineering Intern

Python

May 2018 - August 2018

- Worked on the companies routing algorithms, the most technically involved part of the companies stack. Extended the system so we could perform real-time matching between professionals for mentoring.
- Created API's and real-time channels for the first mobile app used by our professionals. In particular wrote the backend service to showcase real-time demand and analytics to our pro's.

Quantcast
Software Engineering Intern

Python

March 2017 - July 2017

- Optimized performance of a real-time bidding configuration ETL (Extract, Transform, Load) pipeline. Cut down CPU time by $\sim 30\%$.
  * Abstracted complex business logic as a graph and then implemented efficient graph traversal algorithms to perform the original business logic.
  * Used indirection to reduce memory usage and number of sorts needed to shard domains.

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

Machine Learning Course: `github.com/zhiyanfoo/caltech-machine-learning/`

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/`.

PROJECTS

Zen: An alternative to python's virtualenvwrapper that I personally use. `https://github.com/zhiyanfoo/zen`

Chat App: Chat service with Haskell backend (Websockets, Hspec) and Typescript frontend (React/Redux, Redux Saga).

Source Code : `https://github.com/zhiyanfoo/chat-haskell-backend`

Demo : `http://dadistcoder.com.s3-website-us-east-1.amazonaws.com/`

EXTRACURRICULARS

Haskell Club Founder. Soccer. Basketball. Dungeons and Dragons.

EDUCATION

University of Waterloo
Candidate for Bachelors of Mathematics (Pure Math)

Waterloo, CA

August 2017 – Present