Boshen Cui

Computer Science/Business Administration (5A)

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Experience:

Datadog
Software Engineering (Intern)

New York, NY
Jan 2019 - Apr 2019

- Worked on Metrics Query team, responsible for retrieving billions of time series daily, written in **Golang** and **Python**
- Rewrote aggregation process to stream in new contexts, **decreasing memory allocations by 6x,** and **reducing throttled/aborted queries by 10x**
- Implemented a fast path for certain query behaviors, **cutting memory usage by half for 80% of all queries**
- Worked on several bugfixes and feature tickets, such as preserving data units throughout arithmetic, standardized debugging telemetrics throughout **gRPC** calls, and merging overlapping codepaths between different environments

Formlabs
Web Developer (Intern)

Boston, MA
Jan 2018 - Apr 2018

- Developed multiple content management, lead generation, and user interaction features on the Formlabs website, web store, and Form 2 and Form Cell printer dashboards, in **Python/Django**, **React**, **Redux**, and **D3**
- Created several process improvement tools for the web team such as a blue/green content deploy process, an e2e testing framework, media file backup jobs, and dev vm provisioning, using **Docker**, **Kubernetes**, **Jenkins**, and **AWS**
- Prototyped a **Kafka** data pipeline to stream events from printers, and wrote producer/consumer clients in **Golang**

University of Waterloo
Undergraduate Research Assistant (Part Time)

Waterloo, ON

Under Dr. Xiaofei Zhang

Sept 2017 - Dec 2017

- Built a web interface for command line based graph analysis tools using **Django** and **Celery**
- Refactored graph analysis algorithms written in **C++**, to use **Boost** and **Intel TBB** to improve run times by 20x

Under Prof. Mei Nagappan

May 2018 - Aug 2018

- Used Bayesian Networks to measure usefulness of various metrics as predictors of where bugs are likely to appear in software projects, using **Python**, **pandas**, **GOBNILP**, and **Graphviz**, against the ECLIPSE IDE changelog dataset

Polar
Front End Software Developer - Publisher Services Team (Intern)

Toronto, ON
Jan 2017 - Apr 2017

- Built responsive native ads for publishers such as Huffington Post, TechCrunch, Telegraph using **JavaScript**, **HTML**, **CSS**, and Polar's API, driving over 1.8 billion impressions and 3.5 million views per month
- Took over Technical Account Manager role after full time member left, managing all communication and requests from three major publishers

Software Developer - Engineering Team (Part Time, Remote)

May 2017 - Dec 2017

- Worked on UI improvement, feature requests, and bug fixes for client CMS platform written in **Django** and **React**

Projects:

Spotifried Music Library Analyzer
Web app that analyzes and presents data visualizations on users' Spotify libraries, and compares their tastes with those of their friends. Written in **Golang** and **React**, interfaces with Spotify's web API, hosted on **Heroku**.

Anomia | MHacks 8
Alexa app that plays back a song based on lyrics spoken by user. Reverse engineered Google's custom search endpoint to create an accurate song search based on lyrics. Worked on API endpoint, written in **Node.js**, hosted on **AWS Lambda**. Placed in top 10 finalists out of 220 hacks, and won Best Voice User Experience Using Amazon Alexa.

BackAndForth
Back and forth translation app created for QuickTapSurvey support team, written in **HTML**, **CSS**, **JavaScript**, and Google's Translate API. Improved response times for non-english support tickets by 3x, and was adopted for use by the entire team.

Education:

University of Waterloo & Wilfrid Laurier University
Computer Science & Business Administration Double Degree

Expected Graduation: August 2020
3.9 Cumulative GPA

- University of Waterloo President's Scholarship

Notable courses:

- Introduction to Machine Learning, Introduction to Artificial Intelligence, Distributed Systems, Computational Vision