Tony Deng

University of Waterloo - Mathematics

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SKILLS

General Programming: JavaScript/Typescript, Python, C++, C, OCaml.

Web Development: React, Material-ui, Node.js.

Data Science: R, NumPy, ggplot2.

Databases: GraphQL, MySQL/MariaDB, MongoDB.

EXPERIENCE

Sigfig — Software Engineer II

Calgary, AB

September 2021 - Present

- Owned end-to-end design and construction of large front-end features in React/Typescript for use by world-class financial partners.
- Improved caching performance of client application using Apollo Client, enhanced re-usability and composability of GraphQL fragments connected to proprietary orchestration service.
- Involved in refactor and re-design of shared front-end libraries for improving separation of concerns and re-usability of components.
- Extended existing error reporting framework to improve error tracking and managed production deployment on rotation.

Hatchways (YC S19) — Software Engineering Intern

Toronto, ON

September 2020 - November 2020

- Managed and evaluated two teams of software engineer co-ops on collaborative projects, took on sprint planning and code review responsibilities.
- Improved candidate in-flow via web scraping collected over 10,000 potential applicants and corporate contacts for outreach.
- Built full-stack solutions to improve post-program support and candidate evaluation.

${\bf Avidbots~Corp.} \ -- \ Applications~and~Full-stack~Engineer~Co-op$

Kitchener, ON

September 2017 - February 2018

- Main developer responsible for new Operational Intelligence initiative internal data aggregation and visualization platform used by product managers and company executives.
- Built multiple dashboards in React served by NodeJS connected to MariaDB; different views include robot operating history, cleaning efficiency, and customer Google Analytics reports.
- Applied regression models to predict schedules for over 50 customer robots over 4 continents.
- Grew project to a key part of Avidbots product strategy. Took on code quality and deployment responsibilities, managed work of two other developer co-ops on project.

Valuo.io — Co-Founder

Toronto, ON

January 2017 - February 2018

- Headed software design and full-stack implementation of SaaS marketing dashboard product with React powered by NodeJS and MongoDB.
- Led dashboard through four iterations of UI/UX design based on user testing and feedback.
- Designed and implemented NoSQL solution to store user data and pipelines for feeding data to Excel and to D3.js data visualizer.
- Built modular plotting widgets integrating Google Charts and Plot.ly libraries to improve user engagement and provide bespoke visualizations for user data.

EDUCATION

University of Waterloo — B.Math (Graduated April 2020)

- Velocity Entrepreneurship Residence Incubator.
- MTE140 Data Structures & Algorithms; MTE241 RTOS; CS246 Object Oriented Programming.