

Tony Deng

University of Waterloo - Mathematics

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SKILLS

General Programming: JavaScript, Python, C++, C, Rust.

Web Development: React and React Native, NodeJS, Express, HTML, CSS, R Shiny.

Data Science: R, NumPy, ggplot2, D3.js.

Databases: MySQL/MariaDB, MongoDB.

EXPERIENCE

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

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.

CPP Investment Board — *Intern Analyst (Total Portfolio Management)*

Toronto, ON

May 2016 - August 2016

- Built web-hosted macroeconomic visualization dashboard using R Shiny, deployed as new standard for presentation of experimental models within team.
- Conducted novel quantitative analysis on alternative inflation indicators using R, focusing on productivity and import/export ratios within the United States.
- Built R Shiny dashboards for automated retrieval of over 1000 series of economic data from over 10 sources with real-time updates to replace paid proprietary product for team.
- Wrote final manual on financial modelling, data processing, forecasting and visualization using R, used by team for on-boarding new employees without computing background.

EDUCATION

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

- Velocity Residence Incubator Fall 2016.
- MTE140 Data Structures & Algorithms; MTE241 RTOS; CS246 Object Oriented Programming.