



Alexander Greff

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Experience

University of Toronto

Jan 2020 – Present

Teaching Assistant (CSCB09 – Systems Programming)

Toronto, ON

- Facilitating a **weekly 30-person lab section** with the responsibility of helping students understand lab, course, and assignment material
- Assisting course professors with providing **marking and feedback** for over 150 student's tests and assignments
- Developed and maintained an automarker system using a variety of technologies including **Bash/Shell, C, and Python**

CaseWare

Jan 2019 – Aug 2019

Software Developer (Co-op)

Toronto, ON

- Proposed and developed a fully working **dashboard prototype** web-application using **React** and **Redux**, aimed at replacing the legacy dashboard application (see more below in Projects)
- Updated numerous dialogs to use **Vue**, substantially improving **code quality** and **reusability**
- Researched and implemented fixes for multiple bugs in the core Audit system, leading to improved **performance** and **user experience**

Projects

Shabam

June 2019 – Present

Remake of the popular music-recognition app Shazam

- Utilizing **Vue** framework to create responsive frontend client
- Highly scalable backend API implemented using **Node JS, TypeScript, GraphQL** and **PostgreSQL**
- Substantially increasing front-end DSP (Digital Signal Processing) performance using **C++** and **WebAssembly**
- Scalable worker-based architecture containerized using **Docker** to offload heavy DSP processing loads to independent workers

Digital Dashboard

Feb 2019 – Aug 2019

Dashboard proof of concept for CaseWare's Audit Dashboard

- Built using **React** to provide a flexible and extendible component-based design, allowing for future developers to easily build new widgets
- Utilized **Redux** to handle complex state management and data synchronization with the Audit scripting engine

Personal Website

Dec 2018 – June 2019

Personal portfolio website to showcase projects and experience

- Utilized spare time to develop a **responsive** personal website to showcase projects, work experience and other items
- Designed and developed website using **Vue** along with the static site generator **Gridsome**
- Continuous integration deployment pipeline setup using **Netlify**

Skills

Languages/Frameworks

JavaScript • TypeScript
• Vue • React • Redux
• GraphQL • Node JS
• Python • C/C++
• Bash/Shell Scripting
• WebAssembly
• Webpack • HTML/CSS
• SCSS

Technologies/Other

Docker • Travis CI • Git
• Digital Ocean • REST
• JIRA • Agile
• Responsive Design

Education

University of Toronto

- Candidate, Honors Bachelor of Science (Co-op)
- Expected graduation May 2022
- CGPA 3.28/4.0
- UofT Scholars Award 2017