# **Alexander Greff**

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Toronto, ON

#### **Technical Skills**

**Expertise in** JavaScript, TypeScript, Vue, React, Redux, Node.js, Python, C/C++, Flutter, GraphQL, Docker **Exposure to** Agile, Scrum, DevOps, Kubernetes, Continuous Integration (CI/CD), UI/UX Design

#### **Intrapersonal Skills**

- Strong team-player with excellent communication and collaboration skills
- Effective in building and sustaining interpersonal team relationships in a virtual environment
- Self-starter who is passionate about learning new technologies
- Strong analytical and problem-solving skills, thriving in fast-paced environments
- Aptitude for creating maintainable and well-structured code

## **Experience**

Pinch Delivery | Co-Founder & Full-Stack Developer

Sept 2020 - Present

Technologies: Flutter, Node.js, TypeScript, GraphQL

- Co-founder of startup of mobile food delivery platform, reducing 15-30% commission to 1%
- Co-leading development of cross-platform mobile applications using common codebase, improving developer efficiency, and reducing development times

**CaseWare** | Software Developer Internship

Jan 2019 - Aug 2019

Technologies: JavaScript, React, Redux, Vue.js

- Worked in an Agile team, researching and implementing over 20 improvements for CaseWare Audit, increasing performance and improving user experience
- Proposed and led development of dashboard proof-of-concept web application
- Spearheaded development of a dialog system upgrade, improving code quality and reusability

# **University of Toronto** | *Teaching Assistant Positions*

CSCC09 – Programming on the Web

Jan 2021 - Apr 2021

- Guiding and helping students understand fundamental concepts of web development
- Creating and presenting extracurricular introductory lecture about WebAssembly fundamentals

CSCB09 – Software Tools and Systems Programming

Jan 2020 - Aug 2020

• Developed and maintained automarker system utilizing technologies including Bash/Shell, C and Python

**TMHR Consulting** | *Mobile Game Developer* 

Apr 2014 - July 2018

Technologies: Unity3D, C#

• Developed multi-platform software and design of mobile games for iOS and Android devices

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# **Relevant Projects**

**Shabam ☑** | *Music recognition web-app personal project* 

Aug 2021 - Present

Toronto, ON

Technologies: React, WebAssembly, Node.js, TypeScript, GraphQL

• Developing highly efficient, robust, noise-resistant recognition algorithm that performs more than 20,000 times faster than traditional brute-force searching

**SyncTune** ☑ **(Demo Video)** Peer-to-peer music synchronization web app

Feb 2020 - May 2020

Technologies: Vue.js, Node.js, Redis, Web RTC, TypeScript

- Created a responsive web application to synchronize music across multiple devices in real-time, simulating a single unified speaker
- Implemented RESTful API managing connected device rooms and mediating Web RTC handshakes

#### **AlexGreff.com** ☑ | Personal Portfolio Website

May 2020 - Aug 2020

Technologies: React, Gatsby, TypeScript

• Developed responsive, statically generated personal website to showcase project and work experience

## Shadow File Stealer | Malware analysis CTF

Nov 2020

Technologies: Ghidra, C, Assembly

 Statically analyzed stripped binary with Ghidra, bypassing obfuscation attempts and determining functionality of malicious payload

#### **Signal Protocol** | Implementation of the Signal Protocol

Oct 2020

Technologies: Python

 Developed secure offline messaging utilizing Extended Triple Diffie-Hellman (X3DH) and Double Ratchet, ensuring perfect forward secrecy and cryptographic deniability

#### **Pintos** | Operating system 5-project suite

May 2020 - Aug 2020

Technologies: C, GDB, Bash

• Extended educational operating system, gaining technical proficiency in implementing key operating system concepts including, priority scheduling, user programs, virtual shared memory, and index-based file systems

#### **Java Console** ☑ | Team of 4 group project, scrum master

May 2018 - Aug 2018

Technologies: Java, JUnit

- Performed scrum master duties including creating/maintaining user stories, project and scrum backlogs, keeping the team focussed and on-track to stay on top of the fast-paced nature of the project
- Applied Agile and test-driven development methods to efficiently complete projects within timeframes

#### **Education**

## **University of Toronto** | H.B.SC, Computer Science (Co-op)

**Sept 2017 – May 2022 (Expected)** 

- Fourth year undergraduate, CGPA 3.4/4.0
- Recipient of UofT Scholars Award 2017 (\$7000)