

Zhehai Zhang

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Education

University of Waterloo

COMPUTER SCIENCE WITH AI AND DIGITAL HARDWARE SPECIALIZATION

- 4.0 GPA (90.88%)

Waterloo, Ontario
Sep. 2020 - May. 2025

Skills

Programming Languages	JavaScript/TypeScript, Python, C++, C#, C, Go, Java/Kotlin, HTML/CSS, SQL, Bash, Rust, Swift
Tools/Frameworks	Google Cloud, AWS, Node, Express, GraphQL, React, React Native, Flask, Docker, Azure, Linux, Flutter
Concepts	Backend/Frontend, Cloud, Hardware, VR/AR, Mobile, SQL/NoSQL, Networks, Operating Systems

Work Experience

LinkedIn

SOFTWARE ENGINEER

Sunnyvale, California
May. 2023 - Sep. 2023

- Developed a charts library which replaced inconsistent design in **90%** of **LinkedIn Recruiter's** hiring metrics and insights
- Simplified chart creation process by **80%** for **100+** engineers by creating reusable components in **JavaScript**
- Enforced universal accessibility and internationalization guidelines to ensure ease of access for all charts in Recruiter
- Bundled Ember addon using **Webpack** for any data visualization team to incorporate into their products easily

BitGo

SOFTWARE ENGINEER

Palo Alto, California
Jan. 2023 - May. 2023

- Built core features in Bitgo's Web3 Wallet over Android, iOS using **React Native** and **TypeScript**
- Deployed checklist and watchlist features to production which directly resulted in **10K daily active mobile users**
- Created backup and restoring methods for crypto passphrases using Google Drive backup and iCloud backup protocols
- Identified and fixed dashboard logic issues on Bitgo's **main product**, unblocking many of Bitgo's important clients

Splunk

SOFTWARE ENGINEER

Toronto, Ontario
May. 2022 - Aug. 2022

- Worked on a IoT monitoring device over embedded (**Python**), backend (**GraphQL Flask**) and iOS (**Swift**)
- Deployed a status lighting feature to prod which allowed customers to control and determine the state of the device
- Discovered and fixed **security vulnerabilities** with the backend, **improved 20% user interface latency** by threading end-point calls and refactoring code in preparation for Public Beta

D2L Corporation

SOFTWARE DEVELOPER

Toronto, Ontario
Sep. 2021 - Dec. 2021

- Refactored workflow engine using **Lambda** functions and owned scheduling workflow actions using **Node.js**
- Wrote tools in **JS** to replicate AWS services such as **SQS** and **DynamoDB TTL** locally which reduced development time

Projects

VRIoT - Virtual Reality Manager for IoT Devices

MIT Reality Hacks Winner
Jan. 2023

MICROPYTHON, C#, RUST

- Built VR application in **Unity** to interface with IoT devices in real time, winning **two categories prizes**
- Implemented **Rust** backend to proxy **bidirectional traffic** between IoT devices and VR headsets
- Used ESP32 microcontrollers running **Micropython** to control an alarm system, multiroom lighting and smart doorbell

InDaBin - Smart Disposal Tracker

Ignition Hacks 2022 Winner

GO, RUST, FLUTTER, RASPBERRY PI, POSTGRES SQL, DOCKER, GOOGLE VISION

Aug. 2022

- Engineered a hardware garbage sorter with image detection using **OpenCV** and **Bluetooth**, which won **First Place**
- Developed a **Go Rest API** that identifies disposables and sorts them using **Google Vision** and **Text to Speech**

ShopAdvisor - Smart Shopping App

Hack the Valley V Winner

JAVASCRIPT, PYTHON, GOOGLE VISION, ML, SELENIUM

Sep. 2021

- Leveraged **React Native** mobile app to create a smart shopping app for Loblaws, which won 3 different awards
- Implemented a **Flask server** with subject detection in voice using **Assembly AI** and **Datamuse**

Awards

2020 **René Descartes National Math Scholarship, \$25,000** awarded to **less than 10** students

UWaterloo