

# Zhejiang Zhang

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## Experience

### D2L Corporation

Toronto, Ontario

SOFTWARE DEVELOPER, AMAZON AWS, TERRAFORM, MYSQL, NOSQL, DOCKER, NODE.JS, REACT

Sep. 2021 - Dec. 2021

- Provisioned production and development AWS infrastructure using **Terraform**, which narrowed **IAM** permissions by **50%** and reduced RDS timeouts by **97%**
- Refactored the main functionality of Automa2n (a workflow engine for generating activities dynamically within Brightspace)'s **Lambda** functions to be more efficient, and added new functionality such as scheduled and delayed actions using **Amazon SQS** and **DynamoDB**
- Wrote tools to locally mock AWS services such as **SQS**, **DynamoDB TTL**, and **Sam** which reduced bugs and the amount of testing on development and production by a significant amount
- Built automated and dynamic CI/CD pipelines with **Github Actions**, using composite actions and reusable workflows

### Bolt Bootcamps

Canada

TECHNICAL DIRECTOR, NODE.JS, GRAPHQL, POSTGRESQL, VUE.JS, MICROSOFT AZURE

Jul. 2021 - Present

- Developed a user-friendly frontend dashboard in **Nuxt.js** for students to apply to BOLT's events, and for organizers to manage BOLT events and applicants
- Implemented a **Node.js GraphQL** backend server with **PostgreSQL** for managing frontend interactions, which holds **100+** users and events
- Deployed frontend and backend with **Azure App Service** and **Azure DevOps** for CI/CD

### ToHacks

Toronto, Ontario

DEVELOPER, TYPESCRIPT, NODE.JS, FIREBASE (NOSQL), REACT, OPENAPI

Jul. 2021 - Present

- Modernized the hackathon dashboard experience by adding events management and statistics pages, as well as restructuring existing code via **React**, which reduced the number of API calls by **60%**
- Implemented overall **Firebase** logic and database design for the hackathon judging web app
- Wrote tests using **Mocha** and **Chai** for **Express TypeScript** backend servers, and setup continuous delivery using **Heroku**

## Projects

### ShopAdvisor - Smart Shopping App

Hack the Valley V

JAVASCRIPT, PYTHON

Sep. 2021

- Leveraged **React Native** mobile app to create a smart shopping app for Loblaws, which won **\$200** worth of prizes
- Implemented a **Flask server** to handle image recognition with **Google Vision** and subject detection in voice using **Assembly AI**

### SubSpace - Cloud Collaboration

Hack The North 2020 ++

VUE.JS, NODE.JS

Jan. 2020

- Developed a way to remotely deploy and share virtual machines with coworkers on the browser which won the **Finalist Award**, placing **top 24 out of 3000+ participants**
- Used **Node.js**, **NoVNC** for the registration, sharing, and live collaboration logic, displayed on **Vue.js** frontend

### Discourse VR - VR Multiplayer Debate

HackKU 2021

UNITY, C++, VUE.JS, NGINX, CLOUDFLARE

Apr. 2021

- Developed a multiplayer solution for virtual parliamentary debates using **Mirror** and **Mixed Reality Headset** through **Unity**
- Deployed web app built in **Vue.js** and **TailwindCSS** to display recordings and live feedback chat which were configured through **Nginx** and **Cloudflare**

### WidgetHub - Customizable Social Widgets

EngHack 2021

TYPESCRIPT, GRAPHQL, REACT, POSTGRESQL

Jun. 2021

- Created frontend using **React**, and implemented over **10+** customizable options for lightweight widgets that can be put on any website
- Leveraged **GitHub** and **Devpost** APIs for widget to contact **TypeScript GraphQL** backend

## Honors & Awards

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

Waterloo, Ontario

2020 **Loran Scholar Semi-Finalist**, Selected from **5000+** applicants based on character, service and leadership

Canada

## Education

### University of Waterloo

Waterloo, Ontario

CANDIDATE FOR HONOURS COMPUTER SCIENCE WITH DIGITAL HARDWARE SPECIALIZATION

Sep. 2020 - Aug. 2025

- 4.0 GPA (93.05%)