Howard Yang

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Work Experience

Tesla Aug 2023 – Jan 2024

Software Engineer Intern

Austin, TX, USA

- Led the reduction of AWS costs by \$30k/month after migrating critical lambda functions and cloud resources to an on-premises pub-sub solution using Golang, PostgreSQL, and Apache Kafka
- Saved 100 hours of developer time per year by creating custom Github Actions across 5 different repositories to run integration tests and deploy to **Kubernetes and ArgoCD**

Groupr Oct 2022 - Mar 2023

Co-Founder Remote

- Co-Founded a startup to create a match-making web app aiding in the formation of hackathon teams
- Delivered a working prototype to market in **2 months** after leading the development of the **Django REST** backend with **7 developers**, designing the architecture, and directing weekly SCRUM meetings
- Received repeat invitations to be utilized again in the following years after deploying the application at **several hackathons**, resulting in **50** teams being created from a complex match-making algorithm

Hitachi - Thales

May 2022 - Dec 2022

Software Analyst Intern

Toronto, ON, Canada

- Overhauled a safety-critical software tool used for visualizing and editing railway designs by updating the runtime environment to **Electron**, leveraging **web sockets** and shifting to **ASP.NET** with **microservice architecture**
- Architected a custom **end-to-end testing** library built on **Playwright** and integrated with the **Jenkins** CI/CD build pipeline, reducing regression testing time by 90%
- Boosted end-user productivity with the addition of 30+ new features, using **VueJS** to create custom components

Software Developer Intern

Sep 2021 – Dec 2021 Winnipeg, MA, Canada

- Developed a full-stack application using Agile Scrum, VueJS, REST APIs, and CRUD operations with 90% test coverage via Jest and close collaboration with the product owner
- Reduced request latency by 40% by optimizing a **MySQL** database query using a **Python** script and custom SQL queries to partition 10+ million stale rows in the main **MySQL** table
- Employed **web scraping** to gather and clean geographical data points from dozens of government sources, resulting in a comprehensive set of map data points for geofencing applications

Projects

Farmlink

Light-Weight: Rendering Engine | GitHub

C++, OpenGL, GLSL, Imgui, GPU Programming

• Released an open-source application for rendering photo-realistic scenes using Monte-carlo techniques

Medical Scheduling Mobile App | GitHub

Java, Android Studio, Mockito, Firebase

• Created a mobile android app allowing doctors and patients to book and track upcoming appointments

EDUCATION

University of Toronto

Toronto, Canada

B.Sc. Computer Science; GPA: 3.8/4.0

Sep 2020 - Apr 2025

• Relevant coursework: Engineering Large Software Systems, Operating Systems, Computability & Complexity Theory, Computer Hardware Organization, Artificial Intelligence, Databases, Data Structures & Algorithms

SKILLS

Languages: Python, Golang, Java, Scala, C, C++, Javascript/TypeScript, C#, Bash, SQL

Frameworks/Libraries: React, Vue, Django, ASP.NET, GORM, Express, Unity

Technologies Git, Jira, Jenkins, Docker, ArgoCD, Kubernetes, Helm, Atlas