

Daniel Liu

🌐 website | 🐙 github | {} devpost | 🎮 itch.io | ✉️ d278liu@uwaterloo.ca | 📞 226-759-3635

projects

Takoyaki 📌 : Cloud Hosting Platform

📅 Nov 2021-present

- Cloud hosting platform that lets users create **virtual private servers** on demand and with features like automatic snapshots and support for various Linux distributions
- **Golang** backend that interfaces with **PostgreSQL** database along with a utility CLI to run database migrations and authorize virtual machine creation requests
- Makes use of **Libvirt** and **CloudInit** cloud images to quickly build a preconfigured virtual machine. Also **dockerized** and configured with **Envoy** as a reverse proxy

ShopAdvisor 📌 : Shopping Done Smarter

📅 Oct 2021

- Developed **React Native** app to streamline the shopping experience by providing store specific information like aisle number of product as well as any ongoing sales
- **Flask** backend that features voice search with intent detection powered by **AssemblyAI**, as well as image search using Google's **vision api**, winning \$200 of prizes

WidgetHub 📌 : A New Way to Widget

📅 Jul 2021

- Wrote **ReactJS** frontend styled with **TailwindCSS** to provide customized one click copyable widgets for use on a variety of sites like Wordpress, Weebly and vanilla HTML
- Implemented **Express Typescript** backend that exposes both a **REST API** and **GraphQL API** to serve aggregated data from a variety of sites like Github and Devpost

DiscourseVR 📌 : Multiplayer VR Debate

📅 Apr 2021

- Built a **multiplayer VR** application with networked voice and text chat using the **Unity Game Engine** along with packages like Mirror, Dissonance, and RockVR
- Created a companion **Vue** webapp using **Nuxt** and **TailwindCSS** to playback the recorded debate, along with a **Google speech-to-text API** generated live transcript
- Served video files through **NGINX** and wrote a **shell script** to automatically format videos with **ffmpeg** and upload to the main server via **rsync**

experience

Enzuzo Data Privacy : Full Stack Web Developer

📅 2021

- Introduced **multilingual support** to flagship cookiebar application and **ReactJS** admin app, bringing in customers from new regions like Japan and Greece
- Wrote migrations in **Golang** using **Gorm** to introduce a property bag model for storing customer settings in **PostgreSQL** database as well as validation for existing data

UW Computer Science Club : Term Com

📅 2021-present

- Used **Ansible** to automate the creation of development VMs for both **Qemu** and **Libvirt**
- Worked on **Golang** script to sync Linux package repositories with the **CSC mirror** 📌

TOHacks : Backend Developer

📅 2021-present

- **VueJS** web app for judges to intuitively grade submitted hackathon projects
- Built **Express Typescript** backend from the ground up with **OpenAPI** based request and response validation, type generation and client sdk

skills

Languages

programming C, C++, Go, Haskell, Java, Javascript/Typescript, Python, Rust
markup HTML, CSS, \LaTeX , Roff
other Unix Shell/Bash, Makefile, SQL

Tools/Frameworks

frontend Vue, React, Django
backend Node, Express, PostgreSQL, GraphQL, OpenAPI/Swagger, ORM
game dev Unity, Blender
sysadmin/devops Ansible, Docker, Envoy, NGINX, Libvirt/KVM, Linux (Arch, Debian)

education

University of Waterloo

📅 2020-2025

Bachelor's of Computer Science with Digital Hardware

interests

Hackathons and Game Jams

Participated and submitted to 20+ hackathons winning 6 times, as well as 5+ game jams

Manga Scanlation

Translate, clean, and typeset a variety of Japanese manga