

Charlie Kim

charliekim2.github.io | charliekim451@gmail.com | 587-921-4574

Education

University of Alberta

Bachelor of Science in Computer Science Specialization

Sep 2019 - April 2024

GPA: 3.75 / 4.00

Professional Experience

Backend Engineer Intern - Vosyn

Dec 2024 - Present

- Develop subscription-based SaaS with **FastAPI** to utilize LLMs & server-side components, securing it with **API Gateway** and a custom key management system.
- Architect and deploy data pipeline in **GCP** and **Postgres** to translate and transcribe multimedia and run inference on **multimodal AI models**.
- Build logging and metrics framework in **Prometheus**, **Elastic Stack**, and **Honeycomb**, enabling customers and admin to track performance and usage statistics.

Full Stack Developer - ABC Head Start Society

Jan 2024 - Sep 2024

- Built a web platform and custom hardware drivers in **React Typescript & MySQL** and secured it with Nginx & SSL, enabling **10,000+ users** to browse & share audiobooks.
- Implemented CI/CD pipeline to deploy containerized applications to Linux machines hosted on **Microsoft Azure** with **<2 min** deploy times.
- Developed and documented a RESTful file sharing API in **Django** and **OpenAPI**, enabling admin and users to securely and quickly access ebook files.
- Created an automated testing framework using **SonarQube**, **Selenium**, **PyTest & JMeter** guaranteeing **80%+ code coverage & 0% downtime** during peak load.

Software Engineer Teaching Assistant - University of Alberta

Sept 2023 - April 2024

- Led four Agile student teams to successfully build and present live event ticketing Android applications in **Java** and **Firebase**.
- Taught labs with **400 students** Java programming, mobile development, & engineering best practices resulting in **90%+ positive** course feedback.

Dairy Manager - Save-On-Foods

Aug 2020 - Jul 2021

- Developed scripts in **Python & Excel** to query an **Oracle SQL** database, analyzing purchase data & forecasting demand to optimize order picking by **40%**.
- Managed & mentored **10+ employees** in retail work resulting in greater customer satisfaction.

Projects

Music Streaming Discord Bot - NodeJS, NoSQL, RESTful APIs

- Chatbot with music streaming & 10+ other integrations on over **400 Discord servers**.

IoT Smart Home Platform - Java, Hibernate, Dropwizard, Python

- Used TDD to add 5+ new features, addressed **90% of technical debt**, integrated automated testing framework, & created a visual interface to view usage statistics for an existing IoT application.

Real time Chat Application - Golang, Echo, HTMX, AlpineJS - [Project Link](#)

- Chat app where users can create group discussions, leveraging Golangs powerful concurrency.

Machine Learning Applications - TensorFlow, R, Julia, Unity

- Various machine learning apps - time series forecasting, computer vision, A*, gradient descent, etc.