Charlie Kim
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Education

University of Alberta   *Sep 2019 - April 2024*
Bachelor of Science in Computer Science Specialization   *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** & a custom key management system.
- Architect & deploy data pipeline in **GCP** & **Postgres** to translate & transcribe multimedia & run inference on **multimodal AI models**.
- Build logging & metrics framework in **Prometheus, Elastic Stack,** & **Honeycomb**, enabling customers & admin to track performance & usage statistics.

Full Stack Developer - *ABC Head Start Society*   *Jan 2024 - Sep 2024*
- Built a web platform & custom hardware drivers in **React Typescript** & **MySQL** & 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 & documented a RESTful file sharing API in **Django** & **OpenAPI**, enabling admin & users to securely & 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 & present live event ticketing Android applications in **Java** & **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.