Charlie Kim

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Education

University of Alberta - *BSc. in Computer Science Specialization - GPA: 3.75/4.00*   *Sep 2019 - April 2024*
Web/Mobile development, DevOps, Machine Learning, Operating Systems, Networks, Management Science

Professional Experience

Full Stack Developer - *ABC Head Start Society*   *May 2024 - Sep 2024*
- Built a full stack 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 with GH Actions which deployed containerized applications to Linux machines hosted on Microsoft Azure with <2 min deploy times.
- Developed a RESTful API in Django with Swagger documentation, enabling admin and users to easily upload and download ebooks from file storage on Microsoft Sharepoint.
- Created a comprehensive stress & fault testing framework using SonarQube, Selenium, PyTest & JMeter resulting in over 80% code coverage & 0% downtime during peak load.

Software Engineer Teaching Assistant - *University of Alberta*   *Sept 2023 - April 2024*
- Led & mentored 4 teams of students to meet with stakeholders, develop a full stack Android application with Java & Firebase, & present their successful solutions ahead of project deadline.
- Taught labs for a class of 400 students Object Oriented Programming, Android app development, & engineering best practices resulting in 90%+ positive course feedback.
- Created instructional Java applications with detailed documentation which allowed students to effectively learn Java development & debug their own programs.

Dairy Manager - *Save-On-Foods Grocery Store*   *Aug 2020 - Jul 2021*
- Developed scripts in Python and Excel to query an Oracle SQL database, analyzing purchase data and forecasting demand to optimize order picking by 40%.
- Grew relations with stakeholders & suppliers through personalized customer solutions.
- Managed & mentored 10+ employees in daily retail work resulting in increased customer satisfaction.

Projects

Music Streaming Discord Bot - *NodeJS, NoSQL, Google API, Weather API*
- Interactive chatbot providing music streaming services & 10+ other integrations to over 400 Discord servers with <50 ms latency.

IoT Smart Home Application - *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.

Realtime Chat Application - *Golang, Echo, HTMX, AlpineJS* - Project Link
- Chat app where users can create group discussions, leveraging Golangs powerful concurrency.

Machine Learning Tools - *TensorFlow, R, Julia, Unity*
- Various machine learning apps - time series forecasting, computer vision, A*, gradient descent, etc.

Technical Skills

Languages: Java, Python, C/C++, JavaScript, HTML/CSS, SQL, Go, ASM, R, Matlab
Technologies: Git/Github, Docker, Azure, React, Django, NodeJS, Linux, Android, MongoDB