Jensen Khemchandani

780-906-4800 · jensenkhem@gmail.com
jensen-khemchandani · jensenkhem · Portfolio Website

Work Experience

Co-op Software Developer | *Willowglen Systems Inc*. | Jan. 2021 – Sept. 2022

- Contributed to mission critical **IIOT** and **SCADA** software that has been deployed across numerous industrial and metro rail systems around the world.
- Administered on-premises **Kubernetes** clusters to secure, run, and monitor the deployment of containerized applications.
- Automated the provisioning of in-house and customer architecture using **Bash** and **Ansible** scripts alongside **Docker**.
- Developed and tested microservice applications/libraries using **Golang** and **C++**.
- Streamlined in-house testing and validation processes using **Gitlab CI/CD** pipelines.
- Utilized **Git** to maintain multiple Gitlab repositories using the Git-flow branching workflow.

Education

B.Sc. Computing Science | *University of Alberta* | Sept. 2018 – Apr. 2024

Projects

"Dev in a Box" Dashboard | *NodeJS, React, REST API, PostgreSQL, Stripe*

- A full stack web application which provides users with an interactive dashboard to manage and create cloud-hosted developer environments.
- Collaborated with a local tech start-up team over a four-month period to provide a solution which integrated with their existing APIs and aligned with their company vision.
- Responsible for creating and testing a robust back end, including OAuth authentication, user management, and secure integration with the Stripe e-commerce platform.
- Designed the application for deployment flexibility using environment variable configuration with Docker.

Gearbook | *Java, Kotlin, Android*

- A mobile app which provides a social community for showcasing your personal book collection and sharing books with other users.
- Created a book-scanning system that captured valid ISBN book codes and automatically retrieved/manipulated book information from the Google books API.
- Managed user account/device data using a Cloud Firebase NoSQL database.

Intelligent Sudoku Solver | Python

- An intelligent solver for 9x9 sudoku puzzles which utilizes recursive backtracking, along with a domain specific implementation of the AC3 constraint satisfaction algorithm to simplify the state space at each iteration of the search.
- Implemented and compared the runtime of two separate variable selection heuristics for a sample set of sudoku puzzles to analyze their impact on the performance of the solver.

Skills

- **Languages:**
  - *Golang, Python, JavaScript, TypeScript, Java, Bash, SQL, C++*
- **Tools:**
  - *Git, Ansible, Terraform, Docker, Kubernetes, React, NodeJS, Gitlab CI/CD, REST API, PostgreSQL, Microservices, Containerization*