

# Jensen Khemchandani

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🌐 jensen-khemchandani • 🐙 jensenkhem • 🌐 Portfolio Website

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## 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.
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## Education

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

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## Course Work

**“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.
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## Personal Projects

**Partyfinder** | *Ruby on Rails, HTML, CSS, PostgreSQL, Git*

- A full stack web-application that allows users to easily find and organize groups of player characters for a popular video game.
- Developed the front-end using HTML/CSS and created the backend RESTful API using Ruby on Rails and PostgreSQL.