

Alex Holland

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EDUCATION

University of Victoria

BSEng. Software Engineering

Victoria, BC
Sept 2019 - Present

EXPERIENCE

ACD Systems International

Apr 2021 – Dec 2021

Quality Assurance Analyst Co-op

- Designed automated and manual tests that uncovered 300+ bugs in the flagship digital asset management and photo editing software.
- Actively participated in Agile development methodology, working closely with developers and management to ensure that software products were delivered on time and met user requirements.
- Developed automation scripts using Bash and Lua to streamline workflows, improve efficiency, and reduce error-prone manual processes.
- Established benchmarks for program execution, memory usage, and CPU utilization to ensure optimal performance.
- Researched software requirements, use cases, and user stories to create comprehensive test coverage across functional and non-functional areas.
- Delivered engaging and informative product demos to stakeholders, utilizing feedback to validate requirements.

Johnny Rockets Canada

Aug 2018 – Jul 2020

Restaurant Team Member

- Collaborated with a team of servers and cooks to deliver excellent customer service and food.
- Efficiently transitioned to any position in the restaurant to best keep up with the fast-paced environment.
- Maintained inventory of all food products and supplies, and ensured orders were placed on time to avoid supply shortages.

PROJECTS

Red Hat Ansible

github.com/ansible

Python, Open Source

- Refactored Ansible core codebase to improve maintainability and extensibility.
- Created detailed issues and pull requests describing proposed changes.
- Utilized automatic code review, testing, and inspection software to identify vulnerabilities.

Password Manager

tinyurl.com/4npd6xr4

Python, SQLite, Tkinter

- Developed a password manager to securely store passwords on a user's local device.
- Created a user-friendly GUI using the Tkinter library for easy access and usage.
- Increased security by hashing user data with a SHA-256 hash algorithm.
- Implemented an SQLite database to securely store passwords and account information.

Automated Train Scheduler

tinyurl.com/y7b2uzr6

C, POSIX Threads, GNU Debugger, Valgrind

- Developed a program that simulates an automated control system for a railway track by using multithreading to make the most efficient use of resources.
- Utilized the POSIX Pthread library to create and manage threads.
- Avoided bugs and memory leaks by using GNU Debugger and Valgrind.

SKILLS

Programming Languages: Java, C, Python, SQL, JavaScript, HTML/CSS

Tools/Technologies: Git, AWS, Docker, Wireshark, OWASP ZAP, Figma

Operating Systems: Linux/Unix, macOS, Windows

Frameworks: JUnit, Mockito, Selenium, Next.js