

EDUCATION

University of Alberta
Computing Science, BSc

September 2017 – May 2021
3.7 GPA

WORK EXPERIENCE

Wishart Lab
Full Stack Developer

May 2021 – Present
Edmonton, AB



- Develop web applications with Ruby on Rails, focusing on back- and front-end feature integration, Rake task automation, security protocol implementation and UI development using jQuery and Bootstrap
- Design, implement and improve MySQL databases for production web applications that are optimized for query efficiency on large datasets, achieving up to 50% improvement in response times
- Coordinate releases, maintenance and improvements of new private gem versions supporting encapsulation of scientific resources during webserver interactions
- Identified and resolved issues within a critical analytical pipeline, leading to significant enhancements in performance with speed improvements of up to 600%

QBoost
Software Designer

Sept 2022 – Present
Edmonton, AB



- Oversee the configuration and maintenance of production servers to ensure optimal performance and security
- Collaborate closely with clients to develop custom Lab Inventory Management Software (LIMS) solutions tailored to their specific requirements
- Developed and implemented an automated testing pipeline with continuous integration and continuous deployment (CI/CD) to maintain high code quality and ensure reliable system operation

PROJECTS

Password and Key Manager (PAKMAN) (Rust) (Ongoing) <https://github.com/hmp31/pakman>

- Open-source command line tool for automatically rotating and deploying passwords and SSH keys
- The end goal of the project is to implement an optional lightweight server for easy organization-level management of key and password policies

OpenJ9 Performance Instrumentation for AI Tool (C++) <https://github.com/eclipse-openj9/openj9-utils/tree/master/perf-tool>

- Collaborated within a small team to implement a Java Virtual Machine (JVM) agent using the Java Virtual Machine Tooling Interface (JVMTI) to capture rich information about the runtime behaviour of the OpenJ9 JVM
- Additionally provides a REST API to facilitate live control of the agent data gathering

AI Global Responsible AI Design Assistant (JS) <https://github.com/UAlberta-CMPUT401/ai-global>

- Web-based survey that provides intelligent recommendations for improving the responsibility of AI Systems by scoring and assessing the respondent's answers
- The project was implemented within a small team using a MongoDB, Express.js, React and Node.js (MERN) stack, with a strong focus on practicing agile methodologies

TECHNICAL SKILLS

Languages: C / C++, Python, Ruby, Java, JavaScript / HTML / CSS, TypeScript, SQL, \LaTeX
Frameworks: Ruby on Rails, Django, Flask, React
Operating Systems: Windows, Linux (Arch & Debian), OS X
Tools: Docker, Git, Bitbucket Pipelines, Redis, Sidekiq, Elasticsearch

LINKS

 <https://github.com/hmp31>
 <https://www.linkedin.com/in/harrison-peters>