Fraser Raney . Jarvis Consulting

I'm a software developer with a Master's degree in Computer Science from Queen's University and a Bachelor's from Trent University. My experience spans academic research in machine learning for medical imaging and hands-on software development in industry, including two years of experience working on web apps using vanilla JavaScript (ES6+), HTML5, and CSS3 for geophysical interpretation tools at Lamontagne Geophysics. I'm passionate about solving real-world problems through technology, whether optimizing code, designing intuitive systems, or exploring tools like cloud computing and AI. What excites me most is the constant opportunity to innovate and make meaningful contributions through software.

Skills

Proficient: Java, Linux/Bash, RDBMS/SQL, TypeScript, React, Python, TailwindCSS

Competent: Agile/Scrum, Git, Docker, Mockito, C#/C++/C

Familiar: AWS, Swift, Flask, Functional Programming, Reinforcement Learning

Jarvis Projects

Project source code: https://github.com/jarviscanada/jarvis_data_eng_FraserRaney

Cluster Monitor [GitHub]: Developed a scalable Linux-cluster monitoring system using Bash scripts and crontab to log CPU, memory, and disk metrics, storing data in a PostgreSQL database within Docker; enables usage tracking and real-time cluster health visibility via SQL.

SQL [GitHub]: Practiced SQL fundamentals using pgAdmin 4 and a Docker-based PostgreSQL 16 (Alpine) instance: created DDL tables via ddl.sql, loaded test data with clubdata.sql, then executed analytical SQL queries involving joins, aggregation, filtering, and string manipulation to reinforce relational database concepts.

Core Java Apps [GitHub]: Grep App: A command-line tool built with Java 8 in IntelliJ IDEA and containerised with a Docker. The build is managed by Maven, testing is done with JUnit 5, and logging is handled via SLF4J with a Log4j backend. Lambdas and streams are also used.

Highlighted Projects

Lamontagne Geophysics - 3C Plotter: Maintained and enhanced a browser-based geophysical data visualization tool using vanilla ES6+ JavaScript, D3.js, HTML5 and CSS3. Implemented signal-normalization algorithms, offline caching via custom service workers, installable web app manifests, support for legacy file formats, user preferences and viewing options, dynamic PDF export, UI enhancements and bug fixes. https://www.lamontagnegeophysics.com/plotter/ .

Prostate CT Segmentation Using UNet [GitHub]: Developed a UNet-based deep learning model for prostate segmentation in CT scans using Python and PyTorch on Google Colab. Implemented data preprocessing with NumPy, SimpleITK, and scikit-learn; trained and evaluated on GPU to demonstrate semantic segmentation, visualization, and model performance in a medical imaging context.

Professional Experiences

Software Developer, Jarvis (2025-present): Collaborated using Agile/Scrum methodology to deliver back-end and data projects. Gained hands-on experience with Linux/Shell, SQL, Git, Docker, SDLC practices, and workflows for real-world enterprise environments.

Software Developer, Lamontagne Geophysics Ltd. (2022-2024): Developed and enhanced geological-interpretation web applications using Vanilla JavaScript (ES6+), HTML5, CSS3, d3.js, and Three.js; implemented dynamic UI controls, offline caching with service workers, and prototype migration to React/TypeScript. Debugged visualization software, documented code changes, and updated manuals.

Education

Queen's University (2019-2021), Master's of Science, Computing - R. Samuel McLaughlin Fellowship

Trent University (2015-2019), Bachelor of Science in the Honours Program, Computing Systems, Computing and Information Systems - Trent National Renewable Scholarship - Dean's Honour Roll (2015-2019)

Miscellaneous

- Coach of the Year - 2024, Kingston Rowing Club
- Volunteer, Murphy Charitable Foundation, contributing to the open-source Next.js/React pen-pal application: Figma/Tailwind CSS, and supported GCP backend features.
- Volunteer, PlanetGeek Toronto, refurbishing and repairing Macs and PCs for reuse to support e-waste reduction and digital access.