Calum **Sieppert**

Software Engineer · Student

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Summary

Current Computer Science student at University of Calgary. 2+ years experience of web, app, and back-end software development. Team lead of several successful projects. Nerd who loves Vim, Linux, and Emacs and enjoys perfecting his development environment. Very interested in the design of maintainable, robust, and well-tested software. Passionate about tackling challenging problems while learning and teaching a lot along the way.

Education

University of Calgary

Calgary, AB, Canada

Bachelor of Science in Computer Science — *Sep. 2019 - Apr. 2023*

- **GPA: 3.95/4.0, In-major GPA: 4.0/4.0**

Work Experience

Cerno Health

Remote

Software Engineer (Contract) — *May 2021 - Sep. 2021*

- Expand client's reach into the Fitbit wearable market by developing two embedded, networked applications integrated with client's existing AWS back-end.
- Enable client's health analytics platform by building application to process and store continuous stream (**2KB/sec**) of user generated biometric data over long periods of time through integration with wearable device sensors.
- Maintain **~0%** data loss and ensure consistent function in resource constrained (**64K RAM**) and highly variable environment (two devices, phone and wearable, with very inconsistent networking).

M2M Tech

Remote

Program Lead, App Development — *Jun. 2020 - Aug. 2021*

- Publish multiple applications to Android and iOS by coordinating team of 4 developers using the Flutter framework while following industry clean code and DevOps best practices.
- Increase employee effectiveness by **100%** by leading and mentoring new developers by giving thorough work reviews and leveraging individual strengths.
- Provide intelligent real estate property recommendations for renovators by creating a custom natural language processing algorithm with SpaCy and Python.
- Ensure future scalability and low response times by designing back-end architecture with a GraphQL API using Python and Starlette hosted on an AWS EC2 instance.

Code the Change YYC

Remote

Machine Learning Developer — *May 2020 - Jul. 2021*

- Improve critical incident report processing at the Calgary YWCA by collaborating on a team of 5 students to develop an open source project with Python and React.
- Achieve **>70%** test classification accuracy with a natural language model hosted on a server providing intelligent auto-completion and client risk assessment using FastAPI and SK-Learn.
- Improve at-risk client response time by **~200%** by implementing NLP-based automated risk assessment and alerting procedure.

Projects

Smart Sleep — *2020-2021*

- Integrated alarm application to optimize wake-up time. Uses machine learning to reverse engineer Fitbit's sleep cycle detection. JavaScript; Python; AWS

RecipEase — *2021*

- Manage a team of 3 students as **team lead** to build website for finding recipes and managing and purchasing ingredients. Project earned full marks despite challenging conditions. C#; .NET; MySQL; Entity Framework Core; Blazor WebAssembly

Fuel Cost Calculator — *2020*

- Application for calculating the price of fuel for a given trip using functional programming. Accepts multiple unit types and supports multi-stop trips. Haskell

Skills

Languages Python; JavaScript; Java; HTML/CSS; Dart; C#; C; Haskell

Technologies NumPy; Pandas; Scikit Learn; MongoDB; SQLite; Git; React; Node.js; Stripe; AWS; Docker; Entity Framework Core; MySQL; .NET; Flutter; GraphQL; SpaCy; Blazor WebAssembly; Starlette; Jira