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Languages Technologies Python, Rust, C++, JavaScript, TypeScript, Kotlin, SQL, Java

Svelte, AWS, Google Cloud, React, Terraform, GraphQL, Express.js, Node.js, PostgreSQL

Education -

University of Waterloo

Bachelor's Degree, Software Engineering Honours (2021 - 2026)

Experience -

Kortex · Software Engineering Intern

Jan 2025 - April 2025

Texada Software · Core Services Developer Intern

May 2024 - August 2024

- Integrated **Codebuild** tests into pipeline pre-deployment to eliminate need of lab environments, saving **\$32,000/year**.
- Leveraged **VPC** to access private API endpoints and achieve **98%** test coverage with strict type parsing using zod.
- Automated pipeline to trigger build test on PR and customized slack messages with **Eventbridge** and **Lambda**.
- Migrated Auth0 settings to Terraform to facilitate scalable multi-region identity management.

SnapPea · Software Engineering Intern

September 2023 - December 2023

- Architected **Electron** dashboard and Android app with **BME688 Gas Sensors** and provide gas detection and prediction.
- Increased customer base by **25%** and project revenue by **\$25,000+** to integrate digital marketing and analytics with solutions using **Google Cloud**.
- Deployed a Shopify app hosted on Heroku to automate new product imports, orders, and fulfillment.

McAfee · Fullstack Software Developer Intern

January 2023 - April 2023

- Analyzed dataset of 30M+ users to diagnose system failures, catching 28 errors relating to domains and data sources.
- Redesigned module mocking for React hooks and Redux stores, resulting in **21%** reduction in post-release bug reports.

MakeSens · Software Developer Intern

May 2022 - August 2022

- Developed an Android app to integrate with **Bluetooth Low Energy** and analyze torsion stress on axles.
- Designed a simulation framework for hydrogen pipeline stress analysis and leak detection using **React** and **Amplify**.

University of Calgary · Cancer Research Student

February 2019 - July 2020

- Studied genes relevant to Low Grade Glioma to observe the relationship between mRNA expressions and survivorship.
- Produced **Kaplan-Meier** graphs and implemented the **Log Rank Sum Test** to determine the significance of survival between quartiles and identify potential oncogenes and tumour-suppressing genes to serve as prognostic biomarkers.

Projects

Lodestone [7]

- Launched server hosting tool for multiplayer games with 6000+ downloads, 500+ monthly users, 700+ Github Stars.
- Implemented features for the **React** frontend using TypeScript, including console filtering and credential updates.
- Architected dynamic server creation by incorporating git with **Rust** to enable version control of the server at runtime.

Graku [2

- Created a grade management system to dynamically calculate and store grades in real time with a user interface using **Svelte** and backend a **DynamoDB** integrated using **AppSync** and **GraphQL**.
- Designed an algorithm to parse equations to account for dynamic user-defined grading systems.

lago 🖸

• Developed an Othello and Go AI in **Python** and **Tensorflow** that employs reinforcement learning and implements the **alphazero** algorithm applicable to all two-player perfect-information zero-sum games.

Lyrr 🖸

- Fine-tuned **Huggingface GPT2** model on 1000+ lyric samples in **PyTorch** to create a style-based lyric generator.
- Refactored using AWS CDK to deploy on Lambda with ECR Docker Container, connecting frontend with APIGateway.