Kieran Hulsman

Software Engineering Student

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Languages: Python, C/C++, Java, JavaScript, TypeScript, HTML/CSS, Bash, Scala, Assembly, VHDL

Technologies: Git, AWS, Unix/Linux, React, REST APIs, Excel, OpenPyXL, MISRA-C, GTest, GCC, Valgrind

Education

University of Waterloo

Sep. 2022 - Apr. 2026

Bachelor of Software Engineering, Honours (BSE)

Waterloo, Ontario

- cGPA: 89.6% (3.9/4.0)
- Dean's Honours: awarded in terms 1A & 1B for academic distinction
- Relevant coursework: data structures and algorithms, compilers, digital computation

Experience

Data Analyst Intern

Jun. 2023 - Aug. 2023

♂ believeco:partners

Toronto, Ontario (part-time, remote)

- $\bullet \ \, \text{Employed the } \mathbf{openPyXL} \ \mathbf{Python} \ \text{library to automate data validation and amalgamation of client lists in } \mathbf{Excel}$
- Developed scripts to comb through Excel sheets and update 2000+ clients in Function Point and QuickBooks Online

Lead Coding Instructor

Apr. 2023 - Aug. 2023

Aurora, Ontario (full-time, on-site)

- Served as lead instructor, supporting the management of 15 staff members in their day-to-day operations
- Led 100+ educational coding sessions for children aged 5-14, teaching object-oriented programming, JavaScript and Lua
- Played a pivotal role in driving company growth from 0 to 100+ clients by conducting over 600 sales calls
- Ensured the smooth IT operations of the business by setting-up and maintaining the fleet of over 30 devices

Projects

☐ ForAllTimes - Lounge Traffic Monitor | AWS, Python, Node.js, JavaScript, Git, HTML/CSS, Raspberry Pi

- Developed a traffic counter with an accuracy rate of 90%, making it easier to find quiet places to study
- Implemented an AWS Lambda function in Python to process data from a Raspberry Pi and update DynamoDB
- Integrated **DynamoDB** with **Node.js** backend to track the number of students in the lounge with CRUD functionality
- Registered a Raspberry Pi as an AWS IoT device to send entry/exit data from ultrasonic sensors to AWS

☐ RenterLoo - Hack the North | Node.js, React, TypeScript, JavaScript, AWS, Python, Git, CSS, REST APIs

- Collaborated within a team to create a student subletting platform aimed at addressing housing shortages in Waterloo
- Built React components to display lease postings fetched from Node.js backend, ensuring a seamless user experience
- Implemented RESTful APIs using AWS Lambda functions in Python to update and retrieve data from DynamoDB

☑ Hangman Game | Java

- Developed a terminal-based hangman game in Java, incorporating colourful output and sound effects
- Enhanced user experience by leveraging multi-threading to optimize graphics performance and reduce lag
- Devised a shift cipher encryption algorithm encorporating file input/output (I/O) to conceal phrases from user
- Implemented **object-oriented programming** techniques to effectively organize code and improve maintainability

Extracurriculars

Firmware Developer | C, Git Formula Electric Design Team

Sep. 2022 - Apr. 2023

University of Waterloo

- Developed familiarity with version control and Git CLI commands by working in a code base with 300+ contributors
- Enhanced the car's error handling capabilities by leveraging CAN signals to broadcast error messages across 6 boards
- Reduced the risk of unexpected behaviour by utilizing MISRA-C lint tools to increase code reliability

Software Engineering Class Representative

Jan. 2023 - Apr. 2023

Engineering Society

University of Waterloo

- Advocated for my 150-person cohort within the Engineering faculty by actively participating in policy debates
- Served on the Sponsorship Allocation Committee and distributed over \$8000 in funding to student design teams