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 – Present**
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)*

- Employed the **openPyXL Python** library to automate data validation and amalgamation of client lists in **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**
Code Ninjas *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* **Sep. 2022 – Apr. 2023**
Formula Electric Design Team *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