Kieran Hulsman

Software Engineering Student

linkedin.com/in/kieranhulsman github.com/Kieran-Hulsman kieran.hulsman@uwaterloo.ca kieranhulsman.com

Languages: JavaScript, Python, C/C++, SQL, TypeScript, Java, HTML/CSS, Scala, Bash, Assembly
Technologies: React, Node, AWS (Lambda/DynamoDB/S3), Flask, Express, Axios, Git, Unix/Linux

Education

University of Waterloo **Sep. 2022 – Present**
Bachelor of Software Engineering, Honours (BSE) *Waterloo, Ontario*

- **cGPA: 91% (3.9/4.0)**
- **Dean's Honours**: awarded in terms 1A, 1B & 2A for academic distinction
- Relevant coursework: data structures and algorithms (**C/C++**), compilers (**Assembly/Scala**)
- Class representative: Engineering Society, Software Engineering Society, Mathematics Society

Experience

Software Developer Intern **Jan. 2024 – Present**
Ollon *Toronto, Ontario*

- Dynamically navigated the company's tech stack, developing frontend components, API routes, and database schema
- Personally contributed over **10,000 lines of code** across **100 pull requests**, reviewed for quality by senior engineers
- Enhanced code quality for client deliverables by spearheading a testing initiative, alongside full-time development work

Software Developer **Sep. 2023 – Present**
WAT.ai *Waterloo, Ontario*

- Developing a **machine learning** model with a graduate researcher to forecast office building energy demands
- Gaining exposure to **machine learning** concepts by actively participating in weekly **50**-person team meetings

Lead Coding Instructor **Apr. 2023 – Aug. 2023**
Code Ninjas *Aurora, Ontario*

- 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**

Software Developer **Sep. 2022 – Apr. 2023**
Formula Electric Design Team *Waterloo, Ontario*

- 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 signals across 6 boards using **C**
- Reduced the risk of unexpected behaviour by utilizing **MISRA-C** lint tools to increase code reliability

Projects

Flashify - 1st Overall, Golden Hack 2023 | *React, Flask, MySQL, JavaScript, Python, AWS S3, Tailwind CSS*

- Created a web application that leverages AI to transform user-uploaded handwritten notes into interactive flashcards
- Developed API endpoints to query a **SQL** database from **Flask** backend, enabling the site's **CRUD** functionality
- Designed flashcard components in **React** with **Tailwind CSS**, incorporating animated card-flipping features
- Utilized **OpenAI's API** to generate question-answer pairs from OCR-parsed user-uploaded images stored in **AWS S3**
- Implemented an authenticated login system to relationally store flashcard decks with users' accounts in a **SQL** database

PlanMyWeekend - AI Itinerary Planner | *Node, React, Express, JavaScript, TypeScript, Tailwind CSS, OpenAI API*

- Deployed an application that leverages **OpenAI's API** to plan engaging weekend itineraries tailored to users' cities
- Developed a **Node** backend using **Express** to facilitate API requests from my **React** frontend written in **TypeScript**
- Utilized a web-scraping API to gather real-time information on upcoming events and activities in the user-inputted city

ForAllTimes - Lounge Traffic Monitor | *AWS, Python, Node, 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 a **Node** backend to track the number of students in a lounge with CRUD functionality
- Leveraged MQTT protocol to send entry/exit **ultrasonic sensor** data from Raspberry Pi to AWS Lambda function