

Emily Hem

3B Computer Engineering

CONTACT

- ❖ (519) 350-3638
- ❖ eshem@uwaterloo.ca
- ❖ <https://www.emilyhem.com>

SKILLS

5 Years: C++

3 Years: C, Python, HTML, CSS, JavaScript, PowerShell, AutoIt, Bash

1 Year: Angular, SQL, Java

EDUCATION

Candidate for Bachelor of Applied Science

Expected Graduation 2023
Computer Engineering,
University of Waterloo

Relevant Coursework:

- Fundamentals of Programming
- Algorithms and Data Structures
- Systems Programming and Concurrency
- Real-Time Operating Systems

ACHIEVEMENTS

People's Choice Award

Runner-Up
GI Game Jam Spring 2021

Best IoT Hack

StarterHacks 2018

Terms Dean's Honours List

Winter 2019

EXPERIENCE

UI Software Engineering

May-Aug. 2021

Kaleidescape, Inc.

- Investigated and documented user experience requirements to define the design for a new feature
- Implemented front-end features, written in **C++**, on an embedded platform
- Proposed procedural changes in scrum meetings and presented at sprint demos to stakeholders

Cloud Security Hacker

Jan.-April, Sept.-Dec. 2020

Agilicus Incorporated, Kitchener, ON

- Designed and implemented an API to retrieve user metrics from a columnar database using **OpenAPI**, **Python**, and **SQL**
 - Set up a lookup table and mapped IDs to names using **Python**, **Kubernetes**, and **Bash**
 - Implemented a graphical user interface to provide visualization for the data using the **Angular** framework (**Typescript**, **HTML**, and **CSS**)
- Simplified user experience through the creation of 3 guiding steppers
- Re-designed a data table into a card-based display with a dialog action form
- Developed a pagination strategy across multiple components in the backend (**Python**, **SQLAlchemy**) and frontend (**Angular**)
- Led a run-through of all components to debug and help the team understand the new user journey
- Coordinated changes in 13 components under active development to bring all company APIs into adherence with a uniform standard

System Quality Assurance

May-Aug. 2019

Virtek Vision International ULC, Waterloo, ON

- Automated file and configuration saving by modifying **C++** code to create a more intuitive workflow for the manufacturing team

PROJECTS

Balcony Rave, <https://git.io/Jua1r>

June. 2021

- Endless 2D side-scrolling rhythm game developed in **Unity** for the GI Jam

Midnight Tempo, <https://git.io/JL7Yy>

Sept. 2020

- 3D first-person rhythm game developed in **Unity** where the player's goal is to click on all the targets as they spawn according to the beat

Smart Waste Management System, Hack the North 2019

Sept. 2019

- Developed an Android app in **Java** which connects to a Bluetooth enabled garbage bin to improve the sorting of waste

EnableU, StarterHacks 2018

Mar. 2018

- Built and coded an Arduino 101 in **C** to control LEDs representing braille letters to address the gap in transport accessibility