

Emily Hem

CONTACT

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

SKILLS

Expert: C++, Java, Python

Proficient: C, SQL, Angular
(HTML, CSS, TypeScript)

Prior experience: C#, Rust,
Ruby, PowerShell, AutoIt, Bash

EDUCATION

Bachelor of Applied Science

Class of 2023

Computer Engineering
University of Waterloo

Relevant Coursework:

- Systems Programming and Concurrency
- Database Systems
- Algorithm Design & Analysis
- Programming for Performance
- Computational Intelligence

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

Software Development Engineer Intern

Sept.-Dec. 2022

Amazon Web Services, Inc., Seattle, WA

- Increased the accuracy of capacity metrics by 10% or more by defining metrics that properly capture the complexity of capacity makeup for a distributed database
- Created a periodic job to automate the publishing of new capacity metrics
- Saved operators up to 4 hours a week by creating a new dashboard tool to centralize capacity management
- Coordinated with multiple teams and stakeholders to define project requirements and ensure that quality and performance standards were met

Software Engineering - Fintech

Jan.-Apr. 2022

Barracuda FX, LLC, Kitchener, ON

- Investigated and fixed a scaling error while navigating system-level interactions and dependencies to prevent the possible overcharging of clients by millions of dollars
- Synchronized API changes between a major bank and our platform to ensure compatibility

UI Software Engineering

May-Aug. 2021

Kaleidescape, Inc., Waterloo, ON

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

Cloud Security Hacker

Jan.-Apr., Sept.-Dec. 2020

Agilicus Inc., Kitchener, ON

- Designed and implemented an API to retrieve user metrics from a columnar database using OpenAPI and Kubernetes
- Implemented a graphical user interface to provide visualization for metrics using the Angular framework
- Simplified user experience through the creation of 3 guiding steppers
- Developed a pagination strategy across multiple components
- Coordinated changes in 13 components under active development to bring all company APIs into adherence with a uniform standard

PROJECTS

KWCA Website, <https://kwca.ca>

July 2023

- Launched a website to showcase the association's objectives and initiatives

Emergency Vehicle Detection

May 2022-Mar. 2023

- Designed a system that can detect and notify the driver of emergency vehicles using digital signal processing and machine learning for the 2023 Waterloo Engineering Capstone Design

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

June 2021

- Endless 2D side-scrolling rhythm game developed in Unity for the 2021 GI Jam