# Amelia Kemp

amckemp@uwaterloo.ca | linkedin.com/in/amelia-kemp/ | github.com/amckemp | ameliakemp.dev

## EDUCATION

**University of Waterloo,** *Bachelor of Software Engineering*                                    *Expected May 2028*
- Relevant Coursework: Data Structures (**C++**), Intro to Compilers (**C**), Digital Computers (**RISC-V Assembly**)
- GPA: 84% (3.7/4.0)

## SKILLS AND CERTIFICATIONS

**Languages:** C/C++, JavaScript/TypeScript, Python, HTML, CSS, VHDL, Assembly
**Tools/Other:** Git, Bash, Unix, Linux, Arduino, iPerf3, Flent, Azure
**Certifications:** Microsoft Certified: Azure AI Fundamentals, Microsoft Certified: Azure Fundamentals

## EXPERIENCE

**UW Orbital Firmware Developer**                                    Waterloo, ON | Sep 2024 - present
*University of Waterloo Satellite Design Team*
- Wrote low-level embedded software for a LEO satellite and software for ground station communications in **C**
- Implemented a driver for a temperature sensor and a minimal thermal management system using **FreeRTOS**

**Networking Research Associate**                                    Ottawa, ON | Jun - Aug 2024
*Algonquin College Applied Research*
- Researched techniques for achieving low latency, low loss, and scalable throughput of packets in networks
- Recompiled the **Linux** kernel to test different congestion control algorithms using **iPerf3**
- Built a testing network with PCs, routers, and switches for **optimizing WiFi 7** performance

**AI Solutions Developer**                                    Ottawa, ON | Jun - Aug 2024
*Microsoft WE Accelerate*
- Designed an investment bot leveraging **Azure AI Services** (Bot Services, ML) to personalize advice
- Created a pipeline for data collection, model training, API integration, and deployment using **Azure Cloud**
- Earned Microsoft Azure (AZ-900) and AI Fundamentals (AI-900) Certifications and presented the solutions

**Freelance Web Developer**                                    Ottawa, ON | Jul 2023
*University of Ottawa Department of Anesthesiology and Pain Medicine*
- Created an interactive map using the **LeafletJS** library to show where faculty members have presented talks
- Published data of **100+ presentations in 30+ cities** to the University of Ottawa 2023 annual report website

## PROJECTS

Product Joy Predictor - Chrome Extension
- Used the Laplacian Succession Theorem to show the probability of a user enjoying a product
- Built and deployed a Chrome extension for Amazon.ca and Amazon.com using **JavaScript** with 8 active users

Weatherbox
- Built a diorama to simulate real-time weather using embedded code from an Arduino to a microcontroller
- Used **C/C++, ArduinoIDE,** electric circuits, and LED strips to realistically mimic the sun's movement, colour, and light intensity according to the time of day and weather conditions

Personal Website
- Designed and developed a personal website with **HTML, CSS, and JavaScript** to showcase software projects
- Employed version control with **Git and GitHub**, published the website using a custom domain