

Emily Mamcarz

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EDUCATION

Computer Engineering + PEY Co-op

09/2021 – 05/2026

University of Toronto

4th year

- Certificate in Engineering Leadership

WORK EXPERIENCE

PEY Backend Software Engineer Co-op

05/2024 – 08/2025

iManage

- **Developed** backend features and extended **APIs** using **Python**, **Django REST Framework**, and **AWS** in a large **web application** production codebase, that were immediately used by customers
- **Deployed** code to production almost daily through **AWS CI/CD pipelines**, gaining deep exposure to rapid release cycles and real-world impact
- **Wrote unit tests**, incorporated **TDD**, and participated in peer code reviews to **ensure high-quality code, reliability, maintainability, extensibility**, and adherence to backend best practices
- **Triaged** and **resolved production incidents** as part of the engineering support rotation, while also shadowing senior developers during high-priority escalations
- **Practiced full ownership** over feature development from **architecture design** and **planning through deployment**, strengthening accountability and autonomy
- **Collaborated** with designers, product managers, and frontend engineers to deliver features to customers

Learning Coach Assistant

06//2023 – Present

Spring to Mind Learning Inc.

- Provides **math** tutoring to students in grades 5 to first-year university through **verbal communication** and synchronous sessions.
- **Records details and written notes** about each tutoring session for each student to track progress and document learnings and challenges to target.
- Performs **administrative tasks** such as providing tutoring updates after each tutoring session.

ORGANIZATIONS

UofT Cybersecurity Student Association

07/2024 – 08/2025

President

- **Spearheaded events** including Security Symposiums and a multi-speaker Industry Panel to connect students with cybersecurity professionals
- **Delivered workshops on secure coding and cybersecurity in robotics** and mentored and judged beginner participants at a student cybersecurity hackathon
- **Led a team** of 8 to publish weekly educational cybersecurity infographics
- **Managed** the club social media presence and connections
- **Designed, implemented, and maintained** the club website using WordPress
- **Conducted outreach** to industry and academia to build speaker partnerships and grow student engagement

PROJECTS

Camera Array System for Field Observation of Pollinators

06/2025 – Present

UofT Capstone Design Project

- Working to increase the **usability, self-sufficiency**, and decrease the **power consumption** of a **microcontroller** camera system that autonomously captures images of plant-pollinator activities from UofT's Biodiversity of Urban Green Spaces Lab
- Will allow users to **offload an SD card to their mobile device** in a timely manner
- Aims to replace a cell battery with a **photo-voltaic power system**
- Implementing a pollinator **detection system** to **decrease power consumption** and the amount of extraneous data