

Uzma Ferdous

✉ uzmaferdous9@gmail.com | ☎ 647-772-8324 | 🔄 [GitHub](#) | [in LinkedIn](#) | 🌐 [Portfolio](#)

SKILLS

Programming Languages: C++, C, C#, Python, JavaScript, TypeScript, HTML/CSS, Assembly (ARMv7)

Frameworks/Libraries: PyTorch, React.js, Node.js, .NET, Next.js, Express.js

Tools: AWS, Google Cloud Platform, MongoDB, New Relic, Sumologic, Docker, Git, Jira, Confluence, Miro

WORK EXPERIENCE

Peer Coach, University of Toronto Engineering Career Centre

September 2025 – present

- Leading workshops and coaching students to increase engagement and prepare for PEY co-op recruitment cycles.

Software Engineer Intern, Xero

May 2024 – August 2025

- Developed new **API endpoints** with **C#** and designed/implemented a user cache to minimize redundant data retrieval for a platform serving **16.7M+** GET/POST requests with a **77.93ms** average response time.
- Implemented and tested a new Inbox/Archive experience for Xero Files UI using **TypeScript**, **RTK Query**, and **Jest**, introducing state management, mobile support, and a file preview column to **4.4M+** total users.
- Owned the development of core functionalities for the Files UI codebase refactoring project (including file upload with progress tracking, drag and drop, table sorting, and centralized error handling) by leveraging an internal accelerator service, **TypeScript**, and **RTK Query** which removed security vulnerabilities, outdated dependencies, and other technical blockers to enable the delivery of major features tied to a company-wide OKR.
- Performed load testing on **15 API endpoints** by mocking **HTTP** requests and implementing exponential backoff logic with the K6 library to validate readiness for Amazon EKS migration, providing results in weekly operations meetings.
- Designed a **New Relic** dashboard to monitor file services, displaying key metrics for on-call support like throughput, latency, and error rates, aligned with SLOs to track error budgets for proactive alerting.

Infrastructure & Cloud Operations Intern, Questrade

May – August 2023

- Leveraged Jira and Confluence to streamline change request workflows and create setup, maintenance, and troubleshooting guides for tools such as Google Cloud Platform, Pure Storage, and other cybersecurity software.
- Improved asset tracking in device management databases with tools such as Device42, vSphere, and SolarWinds.

PROJECTS

Memory Optimization for Rematerialization and Offloading (Capstone Project)

September 2025 – present

- Collaborating with Cerebras Systems to release an open-source **C++** benchmarking framework to test algorithms for recompute, evict, and refill strategies in **DNNs**, including a legality checker for schedule correctness and memory/runtime analysis tools to evaluate trade-offs across hardware hierarchies.

Uzma's Art Shop – Full Stack eCommerce Website 🔗 🔄

May – July 2023

- Designed and developed a full-stack e-commerce website to showcase and sell artwork, leveraging **React.js**, **Next.js**, **Styled-Components**, and **Stripe** for cart and checkout functionality.
- Used **Google Cloud Platform**, **MongoDB**, and **AWS S3** Buckets for storing account, order, and resource information with admin-side CRUD functionalities and user-facing features such as product reviews and favourites.

Scavenger Hunt GIS

January - April 2023

- Developed a GIS application in **C++** leveraging the OpenStreetMaps API, storing street intersections, points of interest, and subway data from **8B+** nodes using **STL data structures** such as hash maps, vectors, and sets.
- Secured **4th** out of 90 teams on course leaderboard for our 'Travelling Courier Problem' algorithm involving **Multi-target Dijkstra**, simulated annealing, and two-opt operations, leading to a **4%** better solution than the benchmark.

EDUCATION

University of Toronto, BAsC in Computer Engineering | cGPA: 3.5

2021 – 2026

- Awards:** Dean's Honour List ('21 Fall, '22 Fall, '23 Fall, '24 Winter), Konrad Group Women in Technology Scholarship
- Relevant courses:** Computer Architecture, Compilers, Operating Systems, Data Structures & Algorithms, Electronics
- Extracurriculars:** You're Next Career Network (YNCN) Brand Growth & Marketing Director, ECE Ambassador