

Umama Rahman

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4th Year Computer Engineering Student - Graduating April 2025 - Seeking 4/8 months internship

EXPERIENCE

Software Engineering Intern

Toronto, ON

• Canadian Pension Plan Investment Board - Capital Markets and Factor Investing

May 2023 - Present

- Enhanced real-time Excel Data Plug-in (Python, PyXll, Redis) to deliver large data sets of hedge fund metrics, risk-data and complex functions to business department directly in Excel from multiple database sources (MongoDB, MySQL, AWS RDS, Aurora, Athena) to improve analysis and decision-making.
- Architected and set up AWS infrastructure by creating Terraform template for EKS and ALB in Cloud environment, and creating AWS Lambda functions for portfolio analysis tools (Java, Spring, AngularJS).
- Created CI/CD pipelines (IBM UrbanCode Deploy, Jenkins) for DEV and UAT environment of new applications onto Linux machines and enhanced overall workflow and streamlined job management (JAMS Scheduler).

Software Engineering Intern

Toronto, ON

• Canadian Pension Plan Investment Board - Public Market Technologies - Active Equities

Sept 2022 - Dec 2022

- Developed/maintained back-end API (Python, Flask, FastAPI) and leveraged databases (SQL, PostgreSQL) for portfolio performance applications. Used Postman and JSON to interact with endpoints.
- Deployed web applications (Kubernetes, EKS, ArgoCD) and set up ETL tasks for performance attribution calculation tools with AWS services (EC2, Lambda, S3, ELB, Route 53). *Certification: AWS - Certified Cloud Practitioner*
- Collaborated with business teams to understand their needs and develop applications to support portfolio management of the company's public investments by effectively communicating and coordinating with stakeholders (Confluence).

Software Developer Co-op

Toronto, ON

• Achievers LLC - Reporting Team

Jan 2022 - April 2022

- Debugged and resolved technical issues in front-end (React, AngularJS, NodeJS) and back-end (PHP, MySQL, PostgreSQL) of Achievers platform. Ensured optimal user experience through QA testing.
- Maintained web applications (JavaScript, HTML5, CSS, Docker), enhanced reporting team's functionalities, and implemented new features with unit testing for improved code quality and reliability.
- Actively engaged in agile software development, including sprint planning, story point estimations, and daily scrum meetings. Collaborated with cross-functional teams to deliver high-quality results with documentation (Jira, Git, Confluence).

Full-Stack Software Developer (Part-time)

St. John's, NL

• Functional & Anatomical Imaging & Shape Analysis Lab - SFU & MUN

Jan 2022 - Present

- Built GPU allocation tool with MUTEX database (SQLite) for seamless user experience.
- Implemented Python wrapper for efficient utilization of rsync commands on Linux machines.
- Leveraged Bash scripting to allocate permissions on Linux machines, utilizing SQLite database configuration.

EDUCATION

Memorial University of Newfoundland and Labrador

St. John's, NL

• Bachelor of Engineering - Computer Engineering (Co-op Program)

Sept 2020 - Apr 2025

GPA: 3.92/4.00

Dean's List 2020-2021 — Dean's Work Term Award (Fall 2022)

EXTRA-CURRICULAR

Operations Executive Lead

St. John's, NL

• HackFrost NL

Oct 2021 - Present

- Successfully planning a tech hackathon for 250+ students, managing event workshops, mini-games, and mentorship sessions.
- Lead operations team, coordinated and moderated the event online and in-person, with event sponsors.

Engineering Success Center - Tutor

St. John's, NL

• Memorial University of Newfoundland - Faculty of Engineering and Applied Science

Sept 2021 - Present

- Strong ability to explain complex engineering concepts in a way that is easy to understand for students.
- Powerful interpersonal and communication skills, working well with students of diverse backgrounds and skill levels.

PROJECTS

- E-Commerce Inventory Management (C++)**: Handled inventory tracking, stock management, and order processing. Implemented features such as real-time inventory updates, automated stock replenishment, and order fulfillment tracking.
- Ferry Reservation System (Web App)**: Built a front-end (**Next.js, React**) and back-end (**Python, FastAPI, SQLite**) to enable users to easily search, select, and reserve seats for Government of NL ferry service and track live ferry schedule.
- Cat vs Dog Identifier (Computer Vision)**: Utilized Google's pretrained Model, which serves as a powerful convolutional neural network (CNN), to accurately classify images as either cats or dogs (**Tensorflow, Google Colab**).
- Library Management System (Java)**: Managing books, borrowers, and transactions. Implement features like book search, borrowing and returning books, generating reports, and managing user accounts (SOLID principles, object-oriented-programming).