

Aaron Lee

(416) - 795 - 3628 | Toronto, ON | aaron.k.lee@torontomu.ca | [Linkedin](#) | [Github](#) | [Portfolio](#)

Education

B.Eng Computer Engineering, Toronto Metropolitan University **Expected Graduation: May 2025**

Relevant Courses: Software Design and Architecture, Operating Systems, Database Systems, Data Structures and Algorithms, Object-Oriented Eng Analysis and Design, and Software Systems.

Skills

Languages/Tools: Java, JavaFX, Python, JavaScript, HTML, C, C#, .NET Framework, SQL, React.JS, Three.JS, Git, Gitlab, Unity, Elasticsearch, Docker, Grafana, Jenkins, Graylog, Firebase, Google Apps Script, Arduino

Work Experience

Environment and Climate Change Canada April 2023 - August 2024
Software Engineer Intern Toronto, ON

- Contributed to the planning, design, and implementation of **Java** back-end components to handle the decoding, processing, and storage of Canada-wide weather data from hundreds of reporting stations.
- Performed integration testing using **docker** containers on a **linux** server environment to optimize data flow.
- Completed Azure fundamentals web course and explored **Azure Cloud** storage methods in new components.
- Validated 20+ components using **Grafana**, **Graylog**, and **Jenkins** to ensure software quality and reliability.
- Completed code reviews on **Gitlab** of mission-critical components to minimize production errors.

IBM May 2022 - August 2022
Business Transformation Intern, Insurance Practice Toronto, ON

- Developed and documented **100+ agile project requirements** to define project scope and align teams.
- Designed key architecture diagrams for a new cloud-based infrastructure solution using **Visio**.
- Communicated with clients to understand their needs and requirements, helping our team more effectively tailor the project specifications.

Genexis Design Summers, 2018 - 2020
Software Engineer Intern Markham, ON

- Developed an **augmented reality mobile app** using **C#** and **Unity** to view virtual 3D office models at scale within a physical space, expanding current business from desktop apps to mobile.
- Designed a set of modular software tools using **object oriented programming** to categorize, draw, and label regions of an office blueprint in a windows application.

Projects

Interactive Neural Network → *(JavaScript, HTML, CSS)* [Github](#)

- Implemented the backpropagation algorithm to create a **multi-layer perceptron** that learned to solve the XOR classification problem by correctly emulating an exclusive-or logic gate.
- Used **Chart.JS** to plot the network's error and used **WebWorkers** to run real time training in background threads.
- Designed a user-friendly, responsive front-end with **HTML** and **CSS** to allow users to simulate the neural network.

Detective Board → *(React.JS, JavaScript)* [Github](#)

- Developed an interactive web tool with **React.JS** for creating stylized mind maps deployed on **Github Pages**.
- Designed draggable 2D components that allow for arranging notes, pins, and images on an infinite canvas size.
- Developed **custom react hooks** to follow best practices and organize codebase in a logical and efficient manner.

Skateport → *(Arduino)* [Github](#)

- Collaborated with 3 students to design, breadboard, and code a skateboard storage locker secured with **RFID** sensors and servo motors controlled by **Arduino**.
- Won 2nd in the 2022 Metropolitan Engineering Competition.

Bookstore Application → *(JavaFX, Visual Paradigm)*

- Collaborated with 3 students to develop a full stack application using **Java** and **JavaFX** to enable users and admins to login, manage, buy, and sell books digitally.
- Designed the codebase using **UML diagrams** in **Visual Paradigm** and used **design patterns** to improve code organization and efficiency.