

# Ayaan Yousaf

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## TECHNICAL SKILLS

**Languages:** Java, Python, JavaScript, TypeScript, C++, C#, HTML, CSS

**Frameworks/Libraries:** React.js, Vue.js, Tailwind CSS, Node.js, Express, PyTorch, NumPy, pandas, Matplotlib

**Tools:** Git, VS Code, IntelliJ, Jupyter Notebook, MongoDB, PostgreSQL, Vercel, RESTful APIs, Agile, CI/CD, UML, Claude

## EDUCATION

**Bachelor of Science (Honours) Co-op in Computer Science**

Ontario Tech University

**Oshawa, Ontario**

*Expected Graduation, May 2027*

- o **GPA:** 3.69/4.3, *President's List for Winter 2023 and Fall 2024*
- o **Related Coursework:** Data Structures, Algorithms, Computer Architecture, Database Systems, AI-Powered Software Engineering, Software Systems Development, Software Design, Web Development, Machine Learning

## PROJECTS

**DRL Software Testing Framework** | Python, Stable-Baselines3, Gymnasium, Selenium

*Sept 2025 – Oct 2025*

- Engineered a modular Deep Reinforcement Learning framework to automate web app and game testing using agents trained on PPO and A2C algorithms.
- Designed and evaluated 4 custom reward functions for simulating distinct user behaviours during testing.
- Accelerated agent training speeds by 6x through environment parallelization with SubprocVecEnv.
- Achieved 95% reusability by decoupling environment logic, training/evaluation scripts, and YAML configuration.

**Portfolio Website** | React.js, Three.js, Vite, Tailwind CSS, Vercel

*Aug 2025 – Sept 2025*

- Built and deployed a responsive portfolio on Vercel, featuring 10+ reusable React components and custom hooks.
- Implemented smooth scroll-triggered animations with Framer Motion, enhancing user experience and interactivity.
- Integrated a dynamic 3D background and interactive Earth model using Three.js.
- Improved accessibility by ensuring compatibility across multiple devices for a consistent user experience.

**BookNest** | Vue.js, D3.js, Node.js, Express, MongoDB, RESTful APIs

*Mar 2025 – Apr 2025*

- Developed a full-stack digital library web application using Node.js, Vue.js, Express, and MongoDB.
- Modeled schemas for core entities using Mongoose and automated database seeding with Node.js scripts.
- Connected frontend Vue.js web pages with backend REST APIs to dynamically retrieve book data.
- Debugged UI issues and implemented advanced search filters, ensuring smoother navigation and usability.

## WORK EXPERIENCE

**RK Studios**

**North York, Ontario**

*IT Support Technician*

*Aug 2021 – Aug 2022*

- Configured hardware and software efficiently for wedding photography, allowing for operation on schedule.
- Managed IT systems and software, including Adobe Photoshop and Lightroom.
- Provided technical troubleshooting, resolving issues with Google Drive and communicating clear solutions to staff.

## ACTIVITIES AND CERTIFICATES

**Computer Science Club – Ontario Tech University**

**Oshawa, Ontario**

*General Member*

*Sept 2023 – Present*

- Participated in a Microsoft-sponsored hackathon event focused on Azure cloud services.

**Employment Readiness Program – Ontario Tech University**

**Oshawa, Ontario**

*Certificate of Participation*

*Completed Apr 2024*

- Attended workshops focused on networking, speed interviewing, and conflict resolution.

**LinkedIn Learning Certificates**

*Completed Nov 2023*

- Advanced Java: Hands-on with Streams, Lambda Expressions, Collections, Generics and More
- Java Algorithms
- Python Essential Training