

Ayaan Sethi

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EDUCATION

Toronto Metropolitan University (Formerly Ryerson)

Toronto, Ontario

B. Eng - Computer Engineering - Software Engineering Option
2026

Expected Graduation, May

- **Dean's List**
- **Related Coursework:** Data Structures & Algorithms, Object Oriented Programming, Software Systems, Digital Systems, Database Systems, Signals and Systems, Electronics Circuits, Computer Programming

PROJECTS

Personal Portfolio Website | *React.js, Tailwind CSS, Framer Motion* | [ayaansethii.com](#)

November 2024

- Created a personal portfolio website to showcase projects, skills, achievements, and hobbies, enhancing personal branding through a dynamic and engaging design.

Posture-Correction AI Application | *Python, Mediapipe, OpenCV*

November 2024

- Developed a full-stack real-time posture correction application leveraging MediaPipe machine learning pipelines and OpenCV, resulting in live camera tracking and user alerts to improve posture during work.
- Designed a posture correction algorithm via ergonomic research, tracking key body points and calculating deviations against predefined thresholds, ensuring accurate real-time feedback.

Central Processing Unit | *VHDL, Quartus II*

December 2023

- Accomplished the development of three distinct CPUs, as measured by their ability to perform advanced logic functions and arithmetic operations, by implementing decoders, FSMs, and flip-flops on FPGA.
- Successfully executed operations including parity checking, bit rotation, and input comparisons by optimizing logic gate configurations for enhanced processing efficiency.

Banking Application | *Java, JavaFX, FMXL Scene Builder*

March 2024

- Produced a comprehensive banking system, measured by the secure handling of banking transactions and administrative controls, by implementing login verification for clients and administrators.
- Enhanced user experience through an intuitive and responsive UI, designed with JavaFX and FMXL SceneBuilder, ensuring smooth interactions and visual appeal.

Dynamic Sketch Pad | *Javascript, HTML, CSS*

June 2024

- Designed a user-friendly sketch pad with customizable grid sizes, improved UI, and various color and eraser options, ensuring an intuitive drawing experience by implementing event-driven controls using JavaScript.
- Managed the project using Git and GitHub repositories, implementing efficient branch management strategies to ensure seamless revision and project completion.

ACTIVITIES AND LEADERSHIP

Toronto Metropolitan Baja Racing Design Team

Toronto, Ontario

Member of Electrical Team

September 2024- Current

- Collaborating with team members on tasks related to the Baja Racing Vehicle, including the integration and troubleshooting of sensors and other electrical components.

Metropolitan Undergraduate Engineering Society

Operations Committee

August 2024 - Current

- Responsible for developing and promoting undergraduate engineering initiatives, with a focus on designing and marketing merchandise.

SKILLS

- **Programming:** Java, Python, JavaScript, HTML/CSS, Node.js, Assembly, C++, C, VHDL/Verilog, SQL, MATLAB
- **Technologies:** Git, JavaFx Scene Builder, Oracle, MultiSim, Quartus, Linux
- **Multilingual:** English, French, Urdu, Punjabi, and Hindi.