Aarya Shah

✉ aarya.shah.2912@gmail.com   📱 (+1) 647-291-2423   🌐 aaryashah.me   in Aarya Shah

EXPERIENCE

University of Toronto Machine Intelligence Student Team...
Director   *Jul 2025 - Present, Toronto, CA*
- Oversaw and advised organizational project and operational activities, managing funds from university grants and revenue streams.
- Implemented business processes for the development of financial infrastructure, including automated tracking systems for expense reporting and budget forecasting.

Green Technologies Lab...
Researcher   *May 2025 - Aug 2025, Toronto, CA*
- Led a collaborative research project on photothermal water purification using solar-powered water treatment technologies.
- Developed hands-on expertise in iterative design, technical writing, data analysis, public speaking, sensors and actuators.
- Presented findings at the UNERD Conference, honing scientific communication skills, winning the Best Podium Award in Chemical Engineering.

University of Toronto Aerospace Team...
Liquid Propulsion Member   *Sep 2025 - Present, Toronto, CA*
- Performed material cost optimization and sustainability analyses by evaluating nitrogen-fixing alternatives through simulation-based assessments, adhering to aerospace safety standards.
- Collaborated cross-functionally with avionics and structures to ensure system-level integration of propulsion components.

Conscious JA...
Co Founder and Finance Officer   *Sep 2023 - Aug 2024 , Toronto, CA*
- Strategically budgeted and allocated funds to departments.
- Oversaw and delegated the companys financial and sales duties, generating profits and establishing a 254% ROI, surpassing our break-even goal and donating profits to charities, and forming partnerships with local businesses.
- Represented Conscious in award interviews, helping to win Company of the Year, the CSR award and Best Advertisement Awards.

Parks Canada...
Compliance Student   *Sep 2023 - Aug 2024 , Toronto, CA*
- Collected, organized and assessed data to propose advancements.
- Collaboratively worked in a team to enforce park compliance.
- Developed document writing, incident reporting, customer service, security, emergency response action and interpersonal skills.

Ontario Legislative Assembly...
Provincial Page   *Oct 2019 - Nov 2019 , Toronto, CA*
- Organized and hosted daily briefings, events and debates.
- Coordinated with legislative members to fulfill daily operations and learn about provincial acts.

ABOUT ME

An analytical, strategic and self-motivated leader and innovator. Skilled in using community-building and problem-solving to deliver outcomes in dynamic environments.

SKILLS

Tools: Python, C/C++, HTML, CSS, JavaScript, Unix/Linux (Red Hat), Windows, Docker, Kubernetes, AutoCAD, Ansys, Matlab, RISC-V Assembly, Verilog, JSON, MySQL, Oracle, R, Pytorch, Tensorflow, UI, Raspberry Pi, Arduino, API, MsOffice, Figma, Jira, ServiceNow, Node.js, Scripting, Asana

Soft Skills: Leadership, Teamwork, Critical Thinking, Analytical, Innovation, Finance, Change, Incident and Problem Management, Project Coordination, Communication, Time Management, Data Management and Analysis, ITSM, Consulting, Emotional Intelligence, Research, Conflict Resolution, Presentation, Cybersecurity and Risk Assessment, Negotiation, Customer Service, Business Processes

EDUCATION

University of Toronto   Toronto, CA
Bachelor of Applied Science + Engineering - Engineering Science, Minor in Engineering Business

Courses: People Management and Organizational Behaviour, Digital and Computer Systems, Vector Calculus, Praxis I-III, Data Structures and Algorithms, ODEs, Deep Learning

ACHIEVEMENTS

- French Concours D'art Oratoire
- Principal's Leadership Award
- Academic Achievement Award
- UofT National Book Award
- Accounting Applications and Financial Business Case Winner (DECA)

PROJECTS

GreenCare Systems
Co-Lead   *Jan 2025, Toronto, CA*

- Implemented a project aiming to optimize healthcare delivery systems using drone technology within hospitals.
- Used Dijkstra and RRT algorithms to simulate self-navigation and modern traffic systems in hospital settings.
- Gained skills in mathematical modelling, software development, problem-solving, market and stakeholder research, communication and presentation.
- Won 2nd place for best programming idea in healthcare.

Cadence AI
Full Stack Developer   *Jan 2025, Toronto, CA*

- Developed a full-stack web application that translates song lyrics across languages with real-time karaoke functionality.
- Built and integrated backend systems using Node.js (Express) and Python (FastAPI) for audio processing and AI model communication, with Boson AI audio recognition and Language Learning Models (LLM).
- Designed frontend-backend integration between React (Vite/Tailwind) and API endpoints, for audio separation, translation, and real-time lyric synchronization features.

Comparing Neural ODEs and Numerical Analysis to Stochastic Differential Equations in Predicting Future Tumor Volumes in Patients with Glioblastoma
Co-Author   *Sept 2025 - Dec 2025, Toronto, ON*

- Conducted literature review and research on mathematical modelling applications in oncology to develop a research proposal.
- Applied theoretical ordinary and stochastic differential equations to develop and train a neural ODE using Lumiere dataset segmentation that can predict tumor volume in patients based on methylation and their Markov state transitions.
- Attended weekly meetings with advisors to track project progress, and wrote a final report to present findings.

Corti-call Smartwatch Biosensor
Team Lead   *Jun 2025, Toronto, CA*

- Researched and designed a bio-sensing smartwatch and app for cortisol monitoring among Addison patients using electrochemical analysis and AI-based recommendations.

COMMUNITIES

- JA Canada Youth Advisory (Sept 2025 -)
- Engineering Science Education Conference (Jun 2025 -)
- Engineering Science Ambassador (May 2025 -)
- NSight Mentorship Program (2024 - 2025)
- Oshawa Youth Council (2020 - 2024)
- City of Oshawa Event Volunteer (2021 - 2024)

LANGUAGES

- English (Native)
- Hindi (Native)
- Gujarati (Native)
- French (Professional)