

# Aaliyah Pirani

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## Skills and Achievements

- 3+ years of experience overseeing and expanding student participation in initiatives through social media advertisements designed using Canva and PowerPoint
- Built partnerships and collaborations for club and nonprofit events, ensuring impactful programming and greater accessibility for students in STEM and math initiatives
- Computer skills: Python (including libraries numpy, scikit-learn, scipy.stats), Microsoft Office, Power Automate

## Education and Awards

**HBSc. in Computer Science, University of Toronto, cGPA: 4.0**

**Sept. 2024 - Apr. 2028** (expected)

**Coursework:** Calculus with Proofs, Linear Algebra, Foundations of Computer Science I & II, Introductory Statistics

**Howard Ferguson Admission Scholarship (\$12,000)**, recognition as an outstanding student from University College

**TD Scholarship for Community Leadership (\$70,000)**

**May 2024**

1 of 20 Canadian students selected from 3100+ applicants in recognition of exemplary community leadership.

## Professional Experience

**Student Research Associate, University of Calgary**

**Jun. 2023 - Apr. 2024**

- Analyzed hemodynamic forces as a biomarker for heart disease in rTOF patients and healthy controls under Dr. Julio Garcia Flores, showcasing their potential for early heart disease diagnosis; presented findings at ISMRM 2024.

**STEMinmotion Founder and Co-President**

**Dec. 2021 - Jun. 2024**

- Co-founded an international non-profit to bridge educational gaps in STEM, enabling junior high students to access advanced curricula regardless of financial barriers, inspiring future innovators
- Organized educational events and accessible tutoring sessions at science museums and online, directly impacting over 1,000 students in underrepresented communities

**Warrant Officer - 604 "Moose" Royal Canadian Air Cadets**

**Sept. 2018 - Jun. 2024**

- Led a squadron of 150+ cadets by coordinating weekly activities and promoting discipline during routine parade nights, while providing mentorship and support by fostering a caring learning environment

## Projects

**SUMO Robot Designer and Competitor**

**Oct. 2024 - Present**

- Designing a competitive sumo robot using SolidWorks, circuitry programming using arduino and set for intramural competition beginning February 2025

**Aqualens Water Quality Testing App Developer**

**Sept. 2024 - Present**

- Collaborating with UofT's Centre for Global Engineering to develop a water quality analysis app, aiming to improve access to safe water for 100+ communities in areas with unreliable water quality across Mexico
- Using Flutter for the frontend and backend data processing, using Github for effective team collaboration

**Analysis on the Effect of COVID-19 on Individuals' Life Satisfaction by Age**

**Nov. 2024 - Dec. 2024**

- Conducted statistical analyses using multiple linear regression and decision tree classification revealing age-specific trends in life satisfaction impacted by COVID-19 using data from the Canadian Social Connection Survey
- Utilized Python and libraries, such as scikit-learn, numpy, scipy, matplotlib, statsmodels to create effective visual aids

## Other Experience and Interests

**Private Pilot (recreational)**

**July 2024 - Present**

- Awarded the Power Pilot Training Scholarship by the Air Cadet League of Canada
- Accumulated 50+ hours in the Cessna 172S, earning the Private Pilot License