

Sarvnaz Ale Mohammad

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Education

APPLIED ENGINEERING SCIENCE (BaSC)| UNIVERSITY OF TORONTO **SEP 2022-APR 2026**

- Activities: Competitions Co-Director of Women in Science and Engineering (WISE) UofT, member of Robotics for Space Exploration (RSX), member of Inclusivity, Diversity & Equity Advisory Committee.

INTERNATIONAL BACALAUREATE (IB) STUDENT| ST. ROBERT CHS **SEP 2018-JUN 2022**

- 4.0 GPA, 100 average, 45/45 IB Score (top 1% of all 170k IB students world-wide).
- Activities: Social Justice Council (President), Debate Society (Co-President), Robotics (Senior Lead).

Skills

- **Languages and Technologies:** Python, Java, C++, MATLAB, NumPy, PyTorch, Matplotlib, TensorFlow.

EXPERIENCE

RESEARCH ASSISTANT| **MAY 2023- AUG 2023**

- Developing filtering algorithm to analyze heart signals for 11 clinical trials from heart failure patients.
- Awarded \$8000 grant for research from the Transform Heart Failure program, supervised by Dr. Mak and Dr. Mihailidis.

RESEARCH ASSISTANT | HYBRID BIOMEDICAL OPTICS LAB (YORKU) **JUN 2022 -AUG 2022**

- Worked on [AfimaCheck](#), a saliva-based Cannabis detection system using thermal cameras.
- Automated data acquisition from thermal camera to detect the presence of target chemicals using **C++**.
- Processed raw frame data and performed image analysis using **Numpy** and **MATLAB**.
- Designed and developed a UI for the testing device using **Python** and Tkinter for use by law enforcement and safety professionals.

PROJECTS

Dry Lab Member| iGEM Synthetic Biology Design Team **FEB 2023-NOV 2023**

- Led team of 16 to create a productivity app using Flutter over the course of 18 weeks for students, and published app on Apple App Store and Google Play Store.
- Created a marketing and business plan. Oversaw budget and finance reports.
- Led high-level product design and planning. Managed technical development strategy.

CO-FOUNDER | CONCHSHELL **APR 2020-JUN 2022**

- Co-founded a start-up to build a wearable bracelet translating American Sign Language to spoken voice.
- Developed a machine learning pipeline to recognize ASL in a real-time video feed using **PyTorch**.
- Built an end-to-end prototype using a Raspberry Pi and Google's text to voice API.
- Conducted extensive market research, developed product strategy, won **\$16500** in seed funding.

Recognition for ConchShell:

- **Canada-Wide Science Fair 2021:** Silver Medal, UofT Engineering Award, Engineering & Innovation Award
- **York Region Science and Technology Fair 2021:** Gold Medal, Best in Age, Best in Digital Technology
- **One of 3 winners in the Ryerson DMZ Basecamp program 2020** (incubator for adult and high school founding teams), awarded a grant of \$5000 to develop ConchShell.
- **Winner of the Social Impact Challenge 2021**, a competition designed for 300+ high school and university founders. Awarded \$10000 in grant funding to develop ConchShell.
- Covered by the [National Observer](#), [Toronto Star](#), [York Region News](#), and [CityNews](#).