# Inuka Silva

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#### EDUCATION

McMaster University

Hamilton, ON

Candidate for Bachelor of Engineering (B.Eng.), Mechatronics Engineering

Sept. 2025 - Present

University of Toronto

Mississauga, ON

Candidate for Honours Bachelors of Science, Computer Science

Sept. 2024 - April 2025

Chippewa Secondary School (96%)

North Bay, ON

High School Diploma

• Schulich Nominee, IB, SHAD 2022 Alumnus

Sept. 2020 - June 2024

TECHNICAL SKILLS

Languages: Python, Java, R, JavaScript, HTML/CSS

Frameworks and libraries: NumPy, pandas, OpenCV, matplotlib, Streamlit, MediaPipe, Next.js, Tailwind CSS

Tools: Git, Photoshop, Illustrator, PyCharm, Onshape, Autodesk Inventor, PrusaSlicer

Soft Skills: Leadership, Teamwork, Presenting

#### EXPERIENCE

## Post Secondary Summer Student - Engineering and Computer Science

May 2025 – Aug. 2025

North Bay, ON

• Worked with Arduino compatible boards to record data from IMU, and transmit readings

- Designed Code for a Raspberry Pi to receive and store readings
- Used Autodesk Inventor to design and fabricate 3D printable parts

#### LEADERSHIP

## Co-Captain, Software Engineer, Robot Driver

Jan. 2018 – April 2024

FIRST Robotics Team 1305

Redpath Raiseboring Limited

North Bay, ON

- Canadian robotics team with longest world championships qualification streak
- 1 of 8 Canadian FIRST Robotics Dean's List Finalist in 2023
- Started and mentored 2 FLL, FTC, and FRC teams across Canada
- Over 500 volunteer and community involvement hours

#### CSS Student Ambassador

Sept. 2023 – Jan. 2024

North Bay, ON

Chippewa Secondary School

- Work with at risk students to complete assignments
- Organized and ran workshops for younger students

## Projects

#### Spotify Gesture Controller | Python

July 2024

- Developed a Python application which used hand gestures to control Spotify media functionalities
- Implemented MediaPipe Model Maker to create and train a gesture recognition model
- Used OpenCV library to capture feed from webcam

### FRC Robot | Java

Jan. 2022 - April 2024

- Integrated autonomous path following and pose estimation with apriltags
- Implemented PID feedback loops and triple modular redundancy for motor control
- Developed code for a swerve robot
- Wrote and implemented code for the 2022, 2023, and 2024 competition robots

#### PID Visualizer | Javascript, HTML and CSS

July 2024

- Developed an interactive visualizer on PID control loops
- Used Ploty is to visualize impacts of PID gains