

DHRUV UPADHYAY 1A Mechatronics Engineering Student

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Technical Skills: Proficient with Python, Java, HTML, CSS, MS Office; Familiar with C++, JavaScript

Soft Skills: Public Speaking, Communication, Leadership, Project Management, Team Management, Entrepreneurship

EDUCATION

University of Waterloo | Waterloo, ON

Degree: Candidate for Bachelor of Applied Science in Mechatronics Engineering

2020-2025

Recipient of [Schulich Leader Scholarship](#), Canada's most coveted undergraduate scholarship worth \$100K, as one of 100 out of over 300,000 candidates, and one of five at Waterloo Engineering

Anderson Collegiate and Vocational Institute | Whitby, ON

2016 - 2020

Completed high school with Top 6 course average of 98%, ranked first among cohort of 200 students

PROFESSIONAL EXPERIENCE

Research Intern | Foundation of Student Science and Technology | Whitby, ON

February 2019-June 2019

- Developed novel research in bioinformatics cancer using machine learning under the supervision of an industry level research mentor
- Researched correlation between pancreatic cancer and alcohol consumption using data science libraries such as Pandas, Numpy, and Scikit-Learn
- Attained 98% classification accuracy using a statistical model based on the Random Forest algorithm

PROJECTS

Arduino-Based Weather Station and Alarm Clock

- Displayed ambient humidity, temperature, and current time on LCD screen using RTC time module and DHT11 Temperature/Humidity module
- Implemented alarm-setting and snooze functionality, and allowed for remote control through Infrared receiver through Arduino-C

Classic "Space Invaders" Game

- Created a clone for the classic "Space Invaders Game" using object-oriented programming and the Java "Swing" library

VOLUNTEERING AND EXTRACURRICULARS

Captain and Lead Programmer | Anderson Skills Robotics Team | Whitby, ON

September 2019-April 2020

- Founded a school Skills Robotics Team, coordinating development of two competition robots including electronics, build, and programming
- Used C++ to implement a PID line-following algorithm for autonomous competition, while mentoring juniors about embedded systems

Youth Delegate | Durham Environmental Advisory Committee | Whitby, ON

April 2019-Present

- Advised the government on topics of environmental interest as a youth representative to act upon and advise the government on various topics of environmental interest along with delegates from across the region.
- Spearheaded a region-wide initiative to facilitate the creation and maintenance of pollinator friendly spaces throughout Durham region by the distribution of wildflower seeds attracting various pollinator species in tandem with annual compost distribution days

Warrant Officer Second Class | 2Vandenbos Royal Canadian Air Cadet Squadron | Whitby, ON

December 2014-Present

- Lead a team of four cadets as Public Affairs In-Charge to strengthen presence of Air Cadet squadron within community
- Instruct younger cadets in topics such as aviation and aerospace, mentor students aiming for flying scholarships, and represented unit for provincial effective speaking competition
- Currently lead team of four in a squadron of over 200 cadets to achieve training compliance and coordinate transition to paperless system
- Attended the national level glider pilot scholarship course, was honoured as the top cadet in batch based on leadership, piloting, and theory

Co-Founder | LocalLife | Toronto, ON

December 2018-June 2019

- Co-founded LocalLife - a startup tackling the plastic waste crisis in the Philippines. Competed against 70+ Undergraduate and Graduate startups and became part of the top 5 as the youngest team; pitched in front of judges for a chance to win \$25K to implement our solution

SHAD Fellow | SHAD Summer Enrichment Program | McMaster University, Hamilton

July 2018

- Attended renowned STEM and entrepreneurship program at McMaster University
- Developed an autonomous drone-based service that aided business and homeowners after a natural disaster

HONOURS AND RECOGNITION

Canada's Top 25 Environmentalists Under 25 | The Starfish Canada

March 2020

- Honoured based upon my work for the environment and pollinators and in social entrepreneurship

Provincial Semi-Finalist | LORAN Scholarship

December 2019

- Was honoured as one of 80 Semi-Finalists from more than 500 applications in Ontario alone for the LORAN, one of Canada's most coveted scholarship awarded on leadership, academic excellence, character, service, and determination

Provincial Finalist | Educational Computing Organizations of Ontario

April 2019

- Worked with team of four students to solve algorithmic computer science problems; became regional champions and provincial finalists