Bhavishey Thapar

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EDUCATION

UNIVERSITY OF TORONTO
Aerospace Engineering (Robotics)
2023 | MEng.

RYERSON UNIVERSITY
Computer Engineering (AI)
2023 | MEng.

UNIVERSITY OF WATERLOO
Mechatronics Engineering
2019 | BASc.

SKILLS

- C/C++
- Python
- ROS
- Matlab/Simulink
- SQL
- Fusion 360
- Linux
- Microcontrollers
- Autodesk Eagle
- Raspberry Pi

COURSEWORK

GRADUATE

Neural Networks: 94%
Development Of UAVs: 86%
Advanced Data Engineering: 92%
State Estimation: 70%
Computer Vision: 87%
Mobile Robotics

UNDERGRADUATE

Autonomous Vehicles: 91%
Multivariable Controls: 80%
Digital Controls: 81%
Introduction to Controls: 74%
Power Electronics: 82%
Image Processing: 90%
MEMS: 89%

AWARDS

General Motors Design Seed Fund
Magna New Mobility Award

INTERESTS

Tennis
Reading
Volleyball

RELEVANT EXPERIENCE

GEOTAB | Automotive Support Engineer
July 2019 - June 2021 | Oakville, ON
- Leveraged Big Data and API's to create Python Notebooks enabling support engineers and customers to find quick resolutions realted to product issues.
- Responsible for creating technical documentation as Subject Matter Expert (SME) for company wide automotive and gateway related queries.

PARAGON SYSTEMS | Mechatronics Engineering Intern
Sept 2017 - Dec 2017 | Concord, ON
- Part of an award-winning team of interns for successfully building and delivering automated end of line testing machines for Brose in Michigan.
- Fabricated and installed structural, pneumatic and electric systems on power seat assembly testers for Daimler AG, Ford and Volvo.

HONDA MANUFACTURING | Mechatronics Engineering Intern
Jan 2017 - April 2017 | Alliston, ON
- Awarded a Kaizen for creating a hand tool to help assembly workers solve problems related to door manufacturing.
- Tested and inspected manufacturing processes to improve product quality.

BOLTON RAILINGS INC. | Mechatronics Engineering Intern
Jan 2017 - April 2017 | Alliston, ON
- Created shop drawings of stair and railing parts for the carpenters using Compass, a CNC compatible software geared towards designing stairs.

WATERLOO REGIONAL POLICE SERVICES. | IT Student
Sep 2014 - December 2014 | Waterloo, ON
- Provided hardware and software support to the company employees.

A&C TOOL INC. | Mechanical Engineering Intern
Jan 2014 - April 2014 | Bowmanville, ON
- Worked as the primary drafting engineer to model and draft steel fabrication projects such as Lifting Beam, Tilt Chute using Autodesk Inventor.

ADDITIONAL EXPERIENCE

UNIVERSITY OF TORONTO AEROSPACE TEAM | Avionics Team
Sept 2021 - Present | Toronto, ON
- Working towards developing a system for a fixed wing UAV to detect landing zones using object detection algorithms running on a stereo camera with the goal of successfully landing the UAV on the landing zone.

ROBOT ARM CONTROLLER
January 2019 - April 2019 | Waterloo, ON
- Designed a feedback controller in MATLAB for a non-linear two link robot arm MIMO system using a Kalman filter as the state estimator.

AUTONOMOUS UNDERWATER VEHICLE
January 2018 - March 2018 | Waterloo, ON
- Designed and built an underwater ROV capable of guiding through underwater obstacles and were placed 2nd in the competition.
- Used a Raspberry Pi single board computer with an ARM processor to interface with sensors and electronic speed controllers for the BLDC motors.