# ABHI PATEL

AbhiP202@gmail.com
b33boy.github.io
6477418735
/in/abhi-patel-0/
B33Boy


## EDUCATION

**Ontario Tech University** — Sept. 2017 to Current
BEng Mechatronics Engineering

## SUMMARY


Engineering student interested in developing skills to excel in the field of computer vision and robotics. Possesses a wide range of technical skills with strong fundamentals, complemented by excellent communication and teamwork.


## SKILLS

**PROGRAMMING LANGUAGES:** Python, C++, Java, MATLAB, HCL, Shell Scripting
**OS:** Linux, Windows
**LIBRARIES/TOOLS:** ROS, Keras, Flask, Numpy, Scipy, Matplotlib, Pandas, GIT, Airflow, Docker, Terraform, Vagrant
**ELECTRICAL AND MECHANICAL:** CAD Modelling (Solidworks), FEA Simulations, Rapid Prototyping, 3D Printing, Soldering and Wiring, Engineering Project Management (MS Project)
**COURSEWORK:** Object Oriented Programming, Statics, Solid Mechanics, Dynamics, Calculus I and II, Differential Equations, Concurrent Engineering And Design, Circuit Analysis, Introductory Electronics, Numerical Methods, Statistics and Probability, Data Structures
**COURSEWORK (OTHER):** Machine Learning (Coursera), Object Oriented Data Structures in C++ (Coursera)

## EMPLOYMENT

**TELUS** — Jan. 2020 to Current
Contractor
- Wrote Terraform code for creating Stackdriver alerts and metrics in GCP for Telus Insights
- Hosted knowledge transfer sessions for IAC

**TELUS** — Scarborough, May 2019 to Dec. 2019
Data Engineering Co-op
- Followed IAC practices on Google Cloud Platform (GCP) for the Telus Insights project
- Experience with Apache Airflow, Vagrant, Terraform, Docker
- Wrote scripts for data wrangling
- Followed sophisticated git workflows and participated in code reviews

**CAROBOT LEARNING AND RESEARCH ORGANIZATION** — Markham, May 2018 to Aug. 2018
Hardware Developer
- Applied the engineering design process to develop an Arduino powered robot car for students to assemble during class
- Taught the CR101, CR102, and CR201 Robotics and Programming classes

## PROJECTS

**SELF DRIVING RC CAR** — June 2018 to Aug. 2018
•Modified an RC car by attaching a raspberry pi to stream camera and ultrasonic sensor data to a computer over a TCP connection
• Solved a multi-label classification problem via the implementation of a neural network in Keras to output steering direction from the image inputs
• Interfaced an Arduino with the RC controller for control

**MACHINE LEARNING COLLECTION**
A repository of (un)supervised classification algorithms written from scratch

## AWARDS

**UofTHacks VI · 3RD PLACE** — Jan. 2019

**UofTHacks VI · BEST IOT HACK USING QUALCOMM DEVICE** — Jan. 2019

**Unifor · UNIFOR LOCAL SCHOLARSHIP** — Sept. 2017

## ACTIVITIES

**UOIT MARS ROVER CLUB · Junior Programming Executive** — Oct. 2017 to Apr. 2019
- Designed and developed ROS nodes for sensor integration, navigation, and teleoperation
- Created a URDF model of the rover, simulating using Gazebo and RVIZ
- Tested system consisting of stereo cameras, and LIDAR on the Jetson TK1 embedded development board
- Designed ROS coding challenge for new club members

**UOFTHACKS VI - HACKATHON** — Jan. 2019
Collaborated to develop PotholePal, a proof-of-concept Arduino robot that gathers pothole data, and transmits geotags to an IPhone app using an MQTT server.

**UOTTAHACKS - HACKATHON** — Nov. 2018
Collaborated to create an augmented reality game using OpenCV.