Sarvan Gill

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Education

University of British Columbia 2017 – Present
BASc Engineering Physics *Average: 89%* *Vancouver, BC*

2019 Trek Scholarship Recipient (Top 5%)

Skills

Languages C++/C, Python, Java, MATLAB, HTML/CSS
Software Linux OS, ROS, SOLIDWORKS, COMSOL Multiphysics
Hardware Soldering, Hand/Power tools, Oscilloscope, Function Generator

Work Experience

TRIUMF Jan. 2019 – April 2019
Co-op Student *Vancouver, BC*

- Optimized reflector geometry on photomultiplier tubes for Hyper Kamiokande, JPN. (MATLAB/C++)
- Designed a large permanent magnet spectrometer (up to 2 Tesla) for a new experiment in FERMILAB, USA. (COMSOL)
- Ran large simulations using a local cluster and Compute Canda Servers
- Presented at meetings on average three times a week

Projects

greenEats (Winner of NWHacks 2020) January 2020

- Won 1^{st} out of 145 teams and 769 participants
- An all in one grocery management application, that can recommend recipes based off of selected ingredients from your inventory
- Personally created a custom API for recipe recommending
- Used Microsoft Azure for speech to text, and the Firebase MLKit Vision API for OCR

Machine Learning Robot Simulation Sept. 2019 - Present

- A simulated robot competition where our robot must use computer vision to ticket illegally parked cars from license plate data
- Simulated with ROS and implemented CNN with OpenCV and Keras
- Implemented pedestrian and collision avoidance through object detection with OpenCV

ENPH 253 Robot Competition May 2019 - Aug. 2019

- A completely autonomous robot tasked with navigating to pillars of different heights, picking up stones on the pillars, returning home and placing the stones accurately in a tilted gauntlet.
- Competed against 15 other robots and went undefeated
- Programmed arm movements and navigation in C++
- Designed with SOLIDWORKS
- Built multiple H-Bridges and control circuits

Extracurriculars

Vaisakhi Parade Volunteer for a local cultural event
Sports Play recreational Ice Hockey and Water Polo