Sarvan Gill

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🎓 Education

University of British Columbia   2017 – Present
BASc Engineering Physics   Average: 90.2%   *Vancouver, BC*
2019 Trek Scholarship Recipient

🕐 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

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 trained with the use of Keras and TensorFlow

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

Boggle Player   November 2018

> Implemented a Graph ADT in Java to calculate the maxmimum score of a Boggle board game using a dictionary text file

⚙ Skills

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

🌐 Extracurriculars

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