Sarvan Gill

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🎓 Education

BASc Engineering Physics with Distinction 2017 – 2022
University of British Columbia *Vancouver, BC*

⚙ Skills

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

◔ Work Experience

Amazon September 2022 – Present
Software Development Engineer (L4) *Vancouver, BC*

> Working on public endpoints for buyer experiences on AWS Marketplace
> Constantly improving, maintaining and catering listings for clients
> Working primarily in Java and with GraphQL to manage client and team request

Safe Software May 2021 – August 2021
C++ Software Development Intern *Vancouver, BC*

> Worked with a small Agile team on implementing features relating to the manipulation of geometric data
> Worked with modern C++ features including smart pointers, move semantics, variant logic etc
> Implemented a new algorithm that improved user run time from the order of hours to seconds (1627x improvement)
> Created multiple integration, unit and regression tests

Intel May 2020 – December 2020
Firmware Intern *Vancouver, BC*

> Contributed to firmware production as a part of a small scrum team following Agile methodology
> Wrote production firmware in C and C++ for Intel solid-state drives
> Implemented support for interrupt driven I2C
> Reviewed and advised on a machine learning model to automate internal processes

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

> Optimized reflector geometry on photomultiplier tubes for Hyper Kamiokande, JPN
> Designed a large permanent magnet spectrometer (up to 2 Tesla) for a new experiment in FERMILAB, USA
> Ran large simulations using a local cluster and Compute Canada Servers

⚗ Projects

Machine Learning Kaon Classifier Nov. 2020 - April 2021

> Created a machine learning model to reject specific backgrounds for an experiment at CERN
> Implemented two classifiers: a boosted decision tree and a neural net
> Collaboration with physicists at TRIUMF

greenEats (Winner of NWHacks 2020) January 2020

> Won 1st out of 145 teams and 769 participants
> An all in one grocery management application
> Personally created a custom API for recipe recommending
> Used Microsoft Azure for speech to text, and the Firebase MLKit Vision API for OCR