

# Sarvan Gill

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Vancouver, BC  
sarvan13

## Education

### BASc Engineering Physics with Distinction

University of British Columbia

2017 – 2022  
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

Software Development Engineer (L4)

September 2022 – August 2023

Vancouver, BC

- > Working on public endpoints for buyer experiences on AWS Marketplace
- > Mitigate and solve any customer impacting and internal facing bugs at any time while on-call
- > Working primarily in Java and with GraphQL on an internal API to collect and distribute customer facing data

### Safe Software

C++ Software Development Intern

May 2021 – August 2021

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

Firmware Intern

May 2020 – December 2020

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

Co-op Student

Jan. 2019 – April 2019

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 1<sup>st</sup> 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