



# Sarvan Gill

2<sup>nd</sup> Year Engineering Physics

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## SKILLS

- Competent with Excel, Word, Photoshop
- Basic knowledge of C, Java, and MATLAB
- Familiar with laboratory equipment: oscilloscopes, multimeters, function generators (used for data analysis)

## TECHNICAL PROJECTS

### Robotic Claw

UBC

Team Project

- Built a self-closing claw to pick up various objects
- Programmed the microcontroller in C to optimize speed & efficiency without breaking objects
- Designed the claw mechanism using SolidWorks
- Determined the optimal timing of the claw for speed and efficiency without breaking objects, programmed in C.
- Claw accurately picked up Lego structures without any breakage

### Rain Water Harvester

Simulation UBC

Team Project

- Created an Excel spreadsheet system to test the functionality of a rain water harvester in a remote location using 5 years of rainfall data and some given variables
- Determined amount of water captured by implementing the use of equations and functions in Excel
- Created a master spreadsheet integrating all the separate categories to optimize cost, water captured, environmental impact, and reliability
- Created a system with a consumer satisfaction value of 75%

### Cardboard Chair

UBC

Team Project

- Created a chair from 1 square meter of cardboard that held up to 350lbs with portability in mind
- Conducted multiple rapid prototypes to maximize cardboard efficiency using scaled paper and cardboard models
- Successfully designed the only folding chair in the class

### Assistive Device (CAD)

UBC

Individual and Team Project

- Created a 3-D printable beverage can opener using SolidWorks with the purpose of assisting those with limited movement
- Design was chosen to represent the team in a technical memorandum

## EDUCATION & AWARDS

### University of British Columbia

Engineering Physics Program

September 2017 – 2022 (Expected)

- Currently in 2<sup>nd</sup> year
- Finished 1<sup>st</sup> year with an average of 90%

1<sup>st</sup> place, 2016, and 2<sup>nd</sup> place, 2017 in Canada in the Young Reporters for the Environment National Competition

## NON-TECHNICAL WORK EXPERIENCE

### Surrey Crime Prevention Society

Surrey, BC

Volunteer Coordinator

Summer 2018

- Trained, assisted and set expectations for volunteers, as a paid supervisor
- Conducted community safety tours and traffic safety patrols with volunteers
- Conducted situational assessments in stressful and emergency situations such as contacting the RCMP and providing clear explanations of crimes in progress
- Documented incidents and sent reports to the RCMP
- Used the 10 codes and the phonetic alphabet on a daily basis

### Lululemon Distribution Centre

Delta, BC

Warehouse Associate

Summer 2017

- Operated machinery such as cardboard compactor and box roller
- Moved and categorized over 150 boxes per day
- Ensured that the entire warehouse was clean and organized for safe operation

### Lindt Chocolatiers

Tsawwassen, BC

Sales Associate

2016 - 2017

- Developed customer service skills by greeting approximately 400 customers per day with samples and helped them with their purchases
- Learned how to work for a company goal by reaching sales goals, showcasing in store promotions, cleaning and restocking

## VOLUNTEER

### 2012 - Present

- Volunteered for Community Savings Credit Union annually at Vaisakhi

### 2015 - 2017

- Volunteered with Operation Green, the sustainability club at Seaquam Secondary

### 2016

- Helped put together the Delta Green Symposium

### March 2016

- Raised approximately \$10,000 and traveled to Nicaragua to build a courtyard for children

## HOBBIES

- Played on Team BC water polo in California—2014
- Played in the Barcelona Summer Cup (soccer tournament) in Spain—2015
- Currently playing rec ice hockey