

# SABRAJ BHATHAL

## 1B Biomedical Engineering

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## Summary of Qualifications

- Proficient in **Solidworks**, able to use the program to design 3D models of prototypes that assisted with the visualization and planning of concepts that were taken into the physical prototyping stage
- Extremely comfortable with creating prototypes in both the low- and medium-fidelity stage
- Have a strong knowledge of design processes (lifecycle, agile, and waterfall)
- Hard-working, attentive individual with an enthusiastic and energetic attitude; eager to take initiative displayed through being treasurer in student council
- Able to work in a fast-paced environment; punctual, with highly efficient multi-tasking skills, evident through the success achieved in DECA Ontario
- Confident leader with strong communication and teamwork skills demonstrated through years of volunteering in the local community

## Projects

### Tremor Reduction Makeup Applicator | SEPT 2019 – DEC 2019

University of Waterloo, Waterloo, ON

- Worked in a group of six to find a solution to the problems that individuals with a form of hand tremors face when attempting to apply makeup; ex. Patients with Parkinson's disease, etc.
- Conducted an in-depth needs assessment of the problem space, finding possible requirements & constraints, functions that can be included in the solution, and researching related products; hand braces
- Created a 3D visualization of the designs on Solidworks
- Created two low-fidelity, and one medium-fidelity prototype for potential solutions, and conducted testing to find any potential improvements that can be made

### Bed Ulcer Detection System, | SEPT 2019 - Present

University of Waterloo, Waterloo, ON

- Participated in the pressure-sensor sub-team of the Biomechatronics Club by helping come up with additional components to the original build, such as sewed in sensors and a more user-friendly GUI

## Education

### Bachelor of Applied Science Candidate | SEPT 2019 - Present

University of Waterloo, Waterloo, ON

Biomedical Engineering in Dept. of Systems Design Engineering

GPA: 85.54%

### RELEVANT COURSES

- BME 161: Introduction to Biomedical Design
  - Gained a proficient understanding of the design process, prototyping, alongside safety and responsibility in engineering design
- BME 162: Human Factors in Biomedical/Health Systems
  - Designing human-machine environments, and prosthetics/rehabilitation devices, in terms of patient safety and reducing human error

### EXTRA CURRICULARS

- Social Representative of the first year Biomedical Engineering class
- Biomechatronics club member in the Pressure-Sensor sub team
- Member in a Basketball Intramural team for eight months

## Skills

### Computer-Aided Design Programs:

Solidworks, Google Sketchup,

### Office Application:

Microsoft Word, Excel, PowerPoint, Access, OneNote

### Soft-Skills:

Confident leader, clear communicator, effective collaborator, self-motivated, time-management

### Problem Solving:

Excellent analytical ability, strategic planning, flexibility

## Volunteer Experience

### Canadian Broadcasting Corporation -

July 2013 – August 2018

- Event Coordinator for CBC kids' day, and the annual CBC employee picnic

### Kidney Organization of Canada- July

2017 – August 2017

- Event Volunteer in annual run
- Helped guide runners, and provide water

## Interests

- Passionate Toronto Sports Fan
- Biomedical Innovations
- Participating in Basketball, Soccer, and Volleyball
- Volunteering to assist individuals and communities in need