

# GURMAN BRAR

## Candidate for BAsC in Biomedical Engineering

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## EXPERIENCE

### Co-Founder / CEO

#### Helmi-Corp

December 2019 - Present    Waterloo, Ontario

- Started a small company in order to produce and test prototypes for a smart helmet device. Working alongside a peer (co-founder) programming and building hardware components. All external parts are printed via a 3D printer and the micro-controller being used is a Raspberry-Pi.

### Team Mentor

#### First Robotics Competition, Team 8403

November 2019 - Present    Hamilton, Ontario

- Returned to old high school to mentor the FRC team in this year's competition. Assisting the team in the mechanical and software aspects of building and testing the robot. The code is being written in Java. Teach coding lessons to the team and assist in build meetings.

### Junior Auto Mechanic

#### North-Eastern Trucking

June 2018 - August 2019    Stoney-Creek, Ontario

- Repair and maintenance of commercial semi-trucks. Repairing engines, replacing tires and fixing smaller components of trailers.
- Working alongside a team of mechanics to problem-solve various solutions to mechanical and electrical problems within semi-trucks.
- Experience with various work-shop tools and mechanical techniques. Experience with leadership and communication within the workplace. Working alongside a team in problem-solving roles.

### Hemodialysis Clinic Volunteer

#### St. Joseph's Hospital

June 2017 - June 2018    Hamilton, Ontario

- Organizing patient schedules and monitoring waiting room, informing patients what time they are scheduled. Assisting them in moving to their clinical chairs. Worked in a team setting, alongside the hemodialysis nurses and hospital staff, communicating patient statuses and wait times.

### Campaign Volunteer

#### Ontario PC Party

April 2018 - July 2018    Stoney-Creek, Ontario

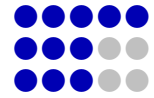
- Managing a group of volunteers with canvassing door-to-door in order to inform the general public of our MP's goals in the upcoming election. Taking diagnostics based on public feedback. Playing the role of a team leader and providing means of communication within my team by organizing different tasks and roles and distributing them.

## SKILLS

C#, C++, React, Node.JS

Python, HTML, SolidWorks

CSS, 3D printing, Unity



## EDUCATION / COURSES

### Digital Computation (C#)

#### University of Waterloo

Sep 2019 - Dec 2019

### Data Structures & Algorithms (C++)

#### University of Waterloo

Jan 2020 - present

## HONORS & AWARDS

- Valedictorian of Graduating Class (High school)
- Ontario Scholars Award.
- Honour role for four years in a row.
- President's Award Scholarship (95%).
- Nominated for Schulich Leader Scholarship.

## PROJECTS

### 3D unity game

- Created game that is rendered for iPhone controls (touch-screen) using Unity and C. Single-level arcade game that makes use of classes, methods, vectors.

### Portfolio Website

- Designed and programmed a portfolio website in React, Node.JS, HTML and CSS. Designed to portrait all projects and act as a medium for communications to public. Blog updates on mentorship program with First Robotics Competition (FRC) Team 8403. Also includes blog updates about personal company and company product. (gurmanbrar.com)

### VR App (Game)

- Designed and programmed a VR game that takes users on a tour through different cities, assessing the impact of Climate Change. Created using Unity and Google cardboard SDK. Programmed in C, incorporating vector path following and object initiated events.

### SUMO bots

- Designed and programmed (C++) a small robot that competed in a SUMO competition. Code was designed to avoid and attack other robots as well as detect and avoid a white line. Made use of a 3D printed chassis and various sensors. Microcontroller used was Arduino.