

# Neel Bullywon

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## SKILLS

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**Languages:** C, C++, CSS/HTML, Java, JavaScript

**Hardware:** PCB Design, Arduino, PTH Soldering

**Tools:** Excel, Git, VS Code, Visual Studio, React

**Certifications:** Network Security Associate 1, Network Security Associate 2

## PROJECTS

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### 🔗 Covid-19 Distance Sensor

May - June 2021

*An Arduino made using an LCD and Ultrasonic Sensor to locate a person's distance*

C++, Arduino.

- Constructed a distance sensor using an **Arduino**, **LCD**, **Ultrasonic Sensor** and coded using **C++** to make a sensor that can locate a person's distance from the wearer.
- Locate a person's distance from the wearer within a **vicinity of 3 meters** and will activate **LEDs** or a **Piezo** based on the distance registered.
- Created a device meant to promote social distancing during this global pandemic and following a safe distance.

### 🔗 LED Cube

December-January 2020

*3x3 LED Cube controlled by PICAXE-20X2 microcontroller*

PICAXE, PTH Soldering.

- Built an LED Cube and implemented a **PICAXE-20X2 microcontroller** to hold the LED Pattern code using **PICAXE**.
- Implementing PICAXE-20X2 chip increased the speed of the LED Pattern by **20%** making it run smoothly with no issues.
- Developed skills in **PICAXE**, **soldering PTH components** giving me experience into the electrical and computer engineering field.

### 🔗 Task Manager

July 2021

*React web application made to organize daily tasks or events*

Node.js, React, Heroku.

- Created an application using **Node.js** and **React** and **React hooks** to create an HTTP website.
- Implemented **React Icons** and **styled components** to create a dynamic UI/UX.
- Deployed website using **Git** commands and hosted via **Heroku** which increased the speed of the site by **20%**.

### 🔗 Christmas Tree LED

November-December 2019

*A PCB Designed by me in the shape of a Christmas Tree*

PCB Design, PTH Soldering.

- Designed **PCB** and **etched copper** from scratch.
- Soldered **PTH components** and implemented **IC1-4093 chip** to configure LED sequence.

## WORK EXPERIENCE

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### 🔧 Active Green and Ross

Mississauga, ON

*Junior Mechanic*

January-March 2020

- **Worked under immense pressure** while providing **excellent customer care** service i.e. Handled enquirers.
- Developed **great communications skills** by communicating with co-workers effectively and given many opportunities to **embrace leadership** i.e., planning out plans for tire and oil changes.
- Processed information from forms given and inputted them into **Excel** and onto the database.

### 🔧 FX LAT Club

Mississauga, ON

*French Tutor*

September-June 2021

- Assisted in developing a French tutoring program to help students struggling with French.
- Collaborated with a dozen students on the club and created this club as a final product.
- Provided tutoring for those in need in school and outside of that for all ages.
- Conducted a survey and all my students increased their average by **10%** under my tutelage.

## EDUCATION

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University of Waterloo

Waterloo, ON

*Bachelor of Applied Sciences BASc Electrical Engineering*

*Anticipated 2026*