# MATHURAN SADAGOPAN

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## SKILLS

**Programming**
C, C++, C#; Python, Java; JavaScript, CSS, HTML; Arduino, Matlab, Verilog, Unity, Firebase, Git

**3D Modeling**
Inventor, AutoCAD and Solidworks
3D Printing, Cura

## EDUCATION

**BSC of Computer Engineering (CO-OP) | McMaster University| SEPT 2017- APRIL 2021**

## EXPERIENCE

**Web Dev Intern | Outsite the Box | JULY 2018 – AUGUST 2018**

- Made landing and signup page for an online marketing agency using WordPress, HTML and PHP
- Applied SEO and improved website load time to improve website traffic, and audience retention. (but company got acquired before website could be released and tested)
- Used google Analytics and Hotjar to debug design issues by analyzing data and understanding heatmaps

**Vehicle Delivery Coordinator| Tesla | MAY 2018 – JUNE 2018**

- Optimized organization of cars in parking lot in order for customers to receive their new Model 3 on time
- Ensured that the vehicle's software was updated as well as their battery fully charged before being sold

**President of the Woodlands Robotics Club | SEPTEMBER 2016 - JUNE 2017**

- Overlooked the Design, Electrical and Programming aspects of FRC and VEX robotics teams and meetings.
- Taught 50+ students, Inventor, C++, Java, and Electrical system through hands on application of lessons and various online tools. Monitored their progress via mini projects over the season.
- Organized events as well as finance for the club, raising over $15 000 in funds

## PROJECTS

**IOT Garden Gnome** AWS IOT, dynomoDB, C https://github.com/saamirt/IOT-Garden-Gnome **| 2019**

- Automated Gardening System built on the NodeMCU, which measures soil moisture, soil and air temperature, and sunlight to determine the best time to water the garden while displaying all the information online

**Hack the North: Robo Order** javascript, HTML https://github.com/stevencl1013/RoboOrder **| 2018**

- Using the Google Home Mini, designed a table waiter speech assistant.
- Orders taken from the assistant would then be uploaded to a firebase database and shown on a website

**Whack-A-Mole AR -** unity, C++, C# https://github.com/Vithop/Wack-A-Bok **| 2018-Present**

- Built an interactive game built on Unity using googles' AR core
- Players can throw weapons at Moles that pop out of the floor in AR

**DELTA Hack IV: implemented muscle Gesture Control User interface** C#, arduino **| 2018**

- Using the myo armband's EMG sensors, 9 axis gyroscope and motion sensors, our team implemented a gesture interface to a 4x4x4 LED cube. Could further be implemented into gesture-controlled robotics.

**Tesla Coil |2017**

- Built a device that generated an electromagnetic resonance field.
- Can amplify a voltage to create large sparks of lightning as well as power light bulbs wirelessly