

# MATHURAN SADAGOPAN

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Mathuran

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## SKILLS

### Programming

C, C++, C#, Python, Java; JavaScript, CSS, HTML;  
Arduino, 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 | Outsie the Box

**| JULY 2018 – AUGUST 2018**

- Made creative and functional websites using WordPress, HTML and PHP
- Applied SEO and improved website load time to improve website traffic, and audience retention (company got acquired before website was released)
- Practiced rigorous code testing and peer review to achieve a high quality

### Robotics Instructor | I CAN

**| JULY 2017 – AUGUST 2017**

- Taught kids from grade 1 to 7 robotics. Developed strong communication skills and established a fun environment for kids to learn about programming and mechanics

### President of the Woodlands Robotics Club

**| SEPTEMBER 2016 - JUNE 2017**

- Overlooked the Design, Electrical and Programming aspects of the FRC robot as well as organize 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.
- Participated in VEX EDR as well as overlooked the operation of 3 other teams
- Organized events as well as finance for the club, raising over \$15 000 in funds



## PROJECTS

### Hack the North: Robo Order

<https://github.com/stevenc1013/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

<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

### Google Cloud Sprint: Fire-lytics projects

**| 2018**

- Attempted to combine product data, google vision API and ML to correlate product design to product sales.

### DELTA Hack IV: implemented muscle Gesture Control User interface

**| 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