MATHURAN SADAGOPAN

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SKILLS

Software Development
React.js, JavaScript, Vue.js; Java (Android),
C, C++, Git, Kotlin, MATLAB

Hardware Development
Arduino, FPGA, Verilog,
Raspberry Pi, PSpice, MATLAB

3D modeling
Inventor, 3D Printing, Cura

EDUCATION

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

EXPERIENCE

SWE Garage Intern | Microsoft Team's CMD & Power Toys | May 2020 – Aug 2020
- As a team worked on 5 features that would reduce stress and fatigue during meetings and improve productivity
- Developed 3 features for the Microsoft Team's **Android** app that is being used by 1000's of people currently
- R&D a color picker for Power Toys, an open source project that enables highly powerful features on Windows

Full Stack Developer | Ellis Don Enterprise Intelligence | May 2019 – Aug 2019
- Created a web application with the focus of helping improve project workflow in the construction industry
- Frontend used **react.js** to create functional components and backend services used **Go** or **Java** Spring Boot

President of the Woodlands Robotics Club | Sept 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 firsthand 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

McMaster Image Decompressor – Verilog, Altera DE2 | 2019
- design, implement and verified a complex integrated digital system for decoding a custom picture format called McMaster Image Compression 13 (.mic13) using Verilog, Quartus and Model SIM
- Read compressed image data over UART and stored it in SRAM where data was decoded and displayed over VGA

IOT Garden Gnome - AWS IoT, DynamoDB, 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

Whack-A-Mole AR - Unity, C++, C#   https://github.com/Vithop/Wack-A-Bok | 2018
- Built a game on Unity using googles' AR core where players throw hammers at Moles that pop out of the floor

DELTA Hack IV: implemented muscle gesture control user interface - C#, 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.