MATHURAN SADAGOPAN

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SOFTWARE SKILLS

Programming Languages
JavaScript, Java, C++/C, Node.js, Python, Kotlin, MATLAB, C#

Technologies and Stacks
Android, Git, Firebase, AWS, Google AR core, Unity, UWP

Frameworks
React.js, Redux, Vue.js, Vuex

EDUCATION

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

EXPERIENCE

Software Engineer Intern | Microsoft Teams & Power Toy | May 2020 – Aug 2020

- Reduced stress and fatigue of Teams users during meetings through the development of 5 new features
- Developed 3 features for the Microsoft Team's android app which 1000s' of people are currently using
- Conceptualized a colour picker for Power Toys, an open-source project that enables power features on Windows
- Worked on frontend of Teams for android using java, and Power Toys used UWP and win32 app, built with C#

Full Stack Developer | Ellis Don Enterprise Intelligence | May 2019 – Aug 2019

- Improved productivity for 100's in the construction industry by building online tools for streamlining workflows
- Built the frontend using react.js and backend services was Go or Java Spring Boot

Web Dev Intern | Outsite the Box | May 2018 – Aug 2018

- Applied SEO and improved website load time to improve website traffic, and audience retention.
- Used Google Analytics and Hotjar to debug design issues by analyzing data and understanding heatmaps

President of the Woodlands Robotics Club | Sept 2016 - June 2017

- Led the design, electrical and programming aspects of FRC and VEX robotics teams and meetings
- Organized events as well as finance for the club, raising over $15 000 in funds

PROJECTS

McMaster Image Decompressor – Verilog, Altera DE2 **| Oct 2019**

- Designed, implemented and verified a complex integrated digital system using 1000's of transistors, for decoding a custom picture format called McMaster Image Compression 13 (. mic13) using Verilog, Quartus and Model SIM
- Used UART and SRAM to read and store compressed image data which was then decoded and displayed over VGA

IoT Garden Gnome - Firebase, C https://github.com/saamirt/IOT-Garden-Gnome **| Sept 2019**

- Designed an automated gardening system built on the NodeMCU, which measures soil and air temperature, soil moisture, 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 **| June 2018**

- Integrated googles' AR core into a Unity game where players throw hammers at Moles that pop out of the floor

DELTA Hack IV: Muscle Gesture Control Interface - C#, C, Arduino **| Jan 2018**

- Created a simple interphase between neural impulses in the arm to communicate with an Arduino

Utilized the Myo armband's EMG sensors, 9 axis gyroscope and motion sensors, our team developed a gesture interface to a 4x4x4 LED cube