

Muhammed Suleman Thaniana

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“Aspiring engineer aiming to play a part in the betterment of humanity”

EDUCATION

Massachusetts Institute of Technology

May 2023

Bachelor of Arts in Electrical Engineering and Computer Science — GPA 5.0

Cambridge, MA

Relevant Coursework: Algorithms, Fundamentals of Programming, Pokerbots, Weblab, MicroComputer Lab, Computation Structures, Circuits, Autonomous Machines, Signals, Economics

TECHNICAL SKILLS

Programming Languages: Python, C/C++, Assembly, RISC-V, HTML/CSS, Javascript, React, MATLAB, Swift

Frameworks/ Developer Tools: Git, SQLite3, VS Code, Bash, Xcode, Arduino, SES, LaTeX

MicroProcessors: Intel 8051, Cypress PSoC, ESP32, Nordic nRF52

EXPERIENCE

Summer Research Assistant

June 2021 – Present

MIT Energy-Efficient Circuits and Systems Group

Cambridge, MA

- Developing and analysing power consumption of a Bluetooth Low Energy(BLE) embedded system.
- Programming the Processor OS and BLE protocol in C.
- Creating an iOS app to communicate with the BLE embedded system.

Embedded Systems and Software Engineer

June 2021 – Present

Mesh Incubator - Mass General Brigham

Cambridge, MA

- Designing a system capable of using sensor readings to facilitate the correct placement of a Nasogastric Tube.
- The system and its algorithms are in C and Python.

MIT Energy Initiative Research Student

June 2021 – Present

Photo Voltaics Lab, MIT

Cambridge, MA

- Building a system to develop and analyse numerous semi conductor compositions to find the ideal solar cell.
- Developing the hardware for the device in C whilst doing the analysis of the droplet compositions in Python.

Lab Assistant Interconnected Embedded Systems

Feb. – May 2021

EECS Department, MIT

Cambridge, MA

- Helped students 1 on 1 and in small groups during Lab and Office Hours with their labs and final project.
- Debugged hardware connections and software in C, Python, SQL, git and HTTP.

Undergraduate Research Assistant

June 2020 – April 2021

Signal Kinetics Group, MIT Media Lab

Cambridge, MA

- Collaborated with the Oceans team of 5 to build an underwater, wireless battery free camera system that harvests energy from back scatter of acoustic signals, whilst using the same signals for communication.
- Constructed an ideal Embedded System using various micro-controllers and image sensors.

STEM Tutor

Sept. 2018 – July. 2020

Gopeer

online

- Taught about 10 High School Students STEM subjects especially maths and chemistry on an online classroom.

LEADERSHIP

The Tech | Sports Editor and Writer

Sept. 2019 – Present

- Cover weekly MIT sports on the Tech and manage the department as Editor.

AWARDS AND ACTIVITIES

International Chemistry Olympiad: Bronze Medal in 2018.

MIT Cricket Team: play on the team as a wicket keeper batsman.

GM Blacktop Build 2021: Won third place in the competition that worked on finding autonomous driving solutions.

Pokerbots: Developed a bot that placed in the top ten at the final competition.