

VIRAJ KULKARNI

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LinkedIn

GitHub

Education

Savitribai Phule Pune University

Bachelor of Engineering in E&TC

CGPA: 8.33

December 2021 - Present

Sawkar Science College, Satara

Higher Secondary School

Percentage: 93.33%

July 2019 - July 2021

Relevant Coursework

- | | | | |
|-------------------------|---------------------------|--------------------|-----------------------|
| • Core MATLAB Skills | • MATLAB Fundamentals | • Embedded Systems | • Database Management |
| • Simulink Fundamentals | • Object Oriented Systems | • Data Structures | • Web Development |

Experience

Pantech ProEd Pvt Ltd

December 2023 – March 2024

Embedded Systems Engineer Intern

- Developed IoT based solutions in an innovative manner and programmed microcontrollers, contributing to a 15% increase in system efficiency, 30% reduction in power consumption.
- Improved system performance by 25% and reduced tolerances by 15% through effective sensor interfacing and optimization using server-system integration.
- Implemented IoT protocols and collaborated on hardware-software integration projects.

MathWorks - AICTE

May 2023 - September 2023

MATLAB Developer Intern

- Developed mathematical & AI based projects using MATLAB, focused on data visualization & data analysis by 90% error reduction.
- Developed MATLAB scripts for signal processing that improved data analysis efficiency by 25%, enhancing the speed of simulations.
- Conducted simulations of electronic circuits in MATLAB/Simulink, identifying design improvements that increased efficiency by 12%.

Projects

HealthSphere | Embedded Software Programming, Sensor Interfacing, Full Stack Development.

- Developed & implemented a real-time healthcare system that achieved data transmission and display latency of less than 1 second, providing accuracy of 97% and timely health metrics .
- Engineered a seamless data flow from hardware sensors to a full-stack web application, enhancing real-time monitoring and visualization by 40% and upgrading UI/UX by 35%.
- Optimized the system's power consumption by 30%, ensuring continuous operation without any interruption .

Thermal Model of House | Simulink, MATLAB, Data Visualization

- Developed a thermal model of a house using Simulink, integrating environmental conditions, thermal properties, and heating systems to simulate indoor temperature control.
- Modified the system to include air conditioning components, improving the model's capability to simulate both heating and cooling scenarios.
- Enhanced the model by incorporating a thermostat subsystem with a 5 °F fluctuation tolerance and a heater subsystem delivering a constant 50 °C hot air flow at 3600 kg/hr.

Technical Skills

Languages & Database: C, C++, MATLAB, Java, Python, JavaScript, MySQL

Developer Tools & Software: Eclipse, Simulink, MATLAB, VS Code, Proteus, MS Office

Other: Data Structures & Algorithms, Object Oriented Programming, Frontend & Backend Development, Embedded Programming & IoT

Leadership / Extracurricular

Entrepreneurship Development Cell

March 2023 - Present

Financial Strategist

- Oversaw financial planning for 10+ professional events, including workshops and seminars, managing costs through effective budgeting & ensuring optimal allocation and utilization of resources.