PEDABALLI VISHNU VARDHAN REDDY

Aspiring Embedded Systems Engineer

E 91 9550215402 pedaballivishnuvardhanreddy@gmail.com

q https://www.linkedin.com/in/pvishnuvardhan/

India, Andhra Pradesh, Vijayawada, Mangalagiri, 522503

SUMMARY

I am an aspiring Embedded Systems Engineer passionate about IoT, microcontrollers, and hardware-software integration. I thrive on developing innovative solutions that leverage cutting-edge technologies to drive industry advancements. My experience in mentoring and leading projects showcases my dedication to fostering collaboration and creativity in technology.

EXPERIENCE

Web Developer Intern

Intern Pe

06/2024 07/2024

An internship in web development.

- Completed a one-month web development internship, building and optimizing web applications.
- Gained experience in web development and started making custom websites.

Academic Projects and Mentorship (IOT)

KL University

2022 - current Vijayawada

Involved in academic projects and mentorship.

- Guided peers and seniors in IoT and embedded systems, resolving doubts, and assisting in project development.
- Organized hackathons to promote innovation and teamwork in IoT.

EDUCATION

Bachelor of Technology (B.Tech)

KL University

08/2022 01/1970 Vijayawada

Intermediate Education

Sri Chaitanya Junior College

06/2020 05/2022

SSC Education

Sri Chaitanya School

06/2020 05/2020

KEY ACHIEVEMENTS

Mentorship and Project Leadership
Mentored over 20 peers and juniors in IoT projects, improving project success rates by 25%. Currently leading an initiative to automate college facilities using IoT frameworks, enhancing operational efficiency.

Hackathon Participation
Successfully developed an attractive mobile application for an IoT-based home automation system during a hackathon. The app enables seamless hardware integration and communication using Google Cloud.

SKILLS

Arduino AWS Azure Azure Cloud CSS Flutter Git Github Home Automation Internet Of Things IoT microcontrollers Microsoft Azure Netlify node node js node.js PCB PCB Design Raspberry Raspberry PI react js react.js STM32 STM32Cubeide Arduinoide

PROJECTS

Real-Time Water Quality Monitoring System

01/2024 02/2024

A system to monitor water quality in real-time.

- Designed a custom PCB to efficiently integrate sensors and ensure reliable data collection.
- Built a web application using React.js for intuitive visualization of real-time water quality parameters.
- Utilized MQTT communication via Azure for seamless and scalable data transmission.

Motion Detection Automatic Lights and Fan System

05/2024 06/2024

An automatic lighting and fan control system based on motion detection.

- Engineered a motion-activated automation system with a custom PCB for enhanced durability.
- Improved sensor accuracy by 15% through calibration and optimization.
- Reduced energy consumption by optimizing system response time.

STM32 Drivers Development

07/2024 08/2024

A project focused on driver development for microcontrollers.

- Developed GPIO drivers for STM32 from scratch using Bare Metal programming.
- Enhanced skills in interpreting datasheets for accurate driver implementation.
- Focused on refining functionalities for embedded systems programming.

Raspberry Pi-Based Weather Monitoring System

09/2024 10/2024

A weather monitoring system using IoT technology.

- Designed a system to collect real-time weather data from sensors and transmit it to Azure Cloud.
- Programmed Raspberry Pi for efficient sensor data processing.
- Demonstrated expertise in connecting edge devices to cloud platforms.

IoT-Based Home Automation System

03/2024 04/2024

An automation system for home management.

- Developed a user-friendly device compatible with existing switchboards, featuring industrial-grade relays for reliability.
- Created a mobile application using Flutter for real-time device control and monitoring.
- Implemented MQTT protocols and AWS IoT Core for advanced scalability.

STRENGTHS

- **Technical Proficiency**

  Extensive knowledge in IoT, microcontrollers Arduino, ESP32, STM32, Raspberry Pi), and Embedded C programming, with hands-on experience in hardware-software integration.

- **Hardware Expertise**

  Skilled in hardware prototyping, PCB design, and sensor integration for industrial-grade solutions.

- **Leadership and Mentorship**

  Mentored 20+ peers in IoT projects, organized hackathons, and spearheaded initiatives to promote IoT innovation.

ADDITIONAL INFORMATION

I send messages, publish, and subscribe, Keeping IoT devices alive.
(What am I?)

I whisper commands wirelessly, yet I remain unseen.

I store the logic to run the show, small yet powerful wherever I go.

I take in signals and send them out,
Controlling devices, there's no doubt.
(What am I?)

PASSIONS

- **Hobbies**

  Building and repairing devices, exploring new and emerging technologies in IoT and embedded systems, and gaming.

- **Startup Vision**

  Deeply committed to growing an IoT-based startup focused on home automation. Excited about developing user-friendly, plug-and-play devices that transform traditional homes into smart living spaces.

- **Exploring Emerging Technologies**

  Enthusiastic about staying updated with advancements in IoT, AI, and cloud computing. Love experimenting with new tools and platforms to push the boundaries of innovation.