# Venkatesh Jonna

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# Summary

Embedded Systems Engineer with hands-on experience in developing and testing IoT and battery monitoring systems. Proven track record in integrating communication protocols (MQTT, CAN), designing embedded frameworks, and optimising power systems. Skilled in automation, system-level testing, and continuous improvement. We are excited to contribute to cutting-edge, energy-efficient solutions in a global engineering environment.

Features: Communication, Leadership, Adaptability, Problem-solving, Multitasking abilities and Time Management.

#### Education

#### Jawaharlal Nehru Technological University Hyderabad

Nov 2020 - Aug 2024

B. TECH in Electronics and Communication Engineering

- ∘ GPA: 8/10 (Consolidated ∠)
- o Coursework: Electronics, Communication, Designing, Embedded systems, Image Processing, Signal Processing, VLSI, Microprocessors and Controllers, Computer architecture, DBMS, Python, C & C++, Scripting Language, Web Technology

### Experience

#### Engineer, Battery systems

Bangalore, India March 2025 - Present

TURNO (Blubble Private limited)

- Promoted to Engineer Battery Systems after completing an internship.
- Continue to work on IoT-based solutions for monitoring power failures and optimising battery performance.
- Contributed to internal QA practices with unit and system-level testing.

Collaborated with firmware and cloud teams to validate end-to-end data flows

• Work extensively with MQTT, CAN transmission, and IoT sensor integration to improve operational efficiency.

IoT Intern Bangalore, India Dec 2024 - Present

TURNO (Blubble Private limited)

- Designed and integrated IoT sensors, reducing power failure detection time by 30
- o Developed a unified framework for remote access, machine monitoring, and power failure detection, increasing operational efficiency by 20

#### Embedded system Intern

Sri mudra pvt ltd

Hyderabad, India sep 2023 - Oct 2023

- Designed and Implemented various Communication protocols such as CAN.SPI,UART,I2C for micro-controllerbased systems, enhancing system communication by 30
- Evaluated hardware components like sensors, actuators, and controllers for compatibility, resulting in a 15improvement in system integration speed.

## **Projects**

#### Fake currency detection with feature extraction using machine learning

- Developed a counterfeit currency detection system. We apply ORB feature extraction and SSIM comparison methods to distinguish genuine from counterfeit notes, ensuring enhanced security in financial transactions.
- o Tools Used: Python, OpenCV, Tkinter, SSIM, NumPy, and Jupyter Notebook.

#### IOT based Smart refrigerator system

2024

o Developed a system driven by an embedded system and microcontroller, focusing solely on food condition monitoring.

o Tools used: C++, Arduino IDE, Proteus, ESP32, Sensors(DHT-11, MQ-3), IOT, GSM, BLYNK IOT cloud.

#### Monitoring and warning of flooding conditions using IOT

2023

- o Built a monitoring system to measure the river's level using an embedded system.
- o Tools Used: C++, ESP8266, sensors(Ultrasonic HC-SR04), BLYNK IOT cloud

# **Technologies**

Languages: C, Python, C++, HTML, CSS, JavaScript.

**Technologies:** .NET Core, Proteus, Front-end web development.

Tools: KiCAD, Visual Studio code, GitHub, notion, PlatformIO, Jupyter Notebook.

Protocols: CAN, MQTT, SPI, I2C, UART, WiFi.