

# KATTA SAICHARAN

Phone: 6304545884

Email: charan89135@gmail.com

LinkedIn: [linkedin.com/in/katta-sai-charan-930405203](https://www.linkedin.com/in/katta-sai-charan-930405203)

---

## Professional Summary:

Embedded systems engineer with extensive ability in Embedded C, microcontroller-based programming, and real-time system integration. Skilled in debugging, memory management, and low-power design. Proven record of improving firmware for high-performance IoT applications and collaborating with cross-functional teams to deliver efficient embedded solutions

---

## Academic Qualifications:

### **Bachelor of Technology (Electronics and Communication Engineering)**

Jawaharlal Nehru Technological University – Kakinada, SRK Institute of Technology, Vijayawada, 2023

**CGPA:** 6.11

**Intermediate (M.P.C)** Narayana Junior College, 2018

**Percentage:** 57.6%

**SSC,** Sri Chaitanya School, 2015

**Percentage:** 80%

---

## Technical Skills:

**Languages:** Embedded C, C++ programming

**Operating Systems:** RTOS, Linux

**Embedded Systems:** Microcontroller Programming, Sensor Integration, Device Drivers

**Networking:** TCP/IP

**Protocols:** UART, I2C, SPI, CAN

**IoT Development:** IoT Platforms, Home Automation Systems, Embedded Systems

---

## Certifications:

**Arduino and C Programming** – Coursera

**Python Programming** – APSSDC

**Programming for Everybody in C** – University of Michigan (Coursera)

**Android App Development Workshop** – IIT Hyderabad

**Embedded C** -Vector India

---

## Projects:

**B-tech: IoT-Based Underground Cable Fault and Sewage Monitoring System:** Developed an IoT system for monitoring drainage and detecting cable faults as part of a smart city initiative. Used sensors for real-time data collection and automated alert systems for efficient management. Implemented core functionality using IoT to interface with microcontrollers and sensors.

**Vector India:** In exploring CAN (Controller Area Network) for real-time applications, I implemented advanced automobile safety systems that leverage the CAN protocol. This involved developing features such as left/right indicator control, object detection, and parking sensor alerts using Embedded C to facilitate seamless hardware communication. These implementations significantly enhanced vehicle safety and automation by providing reliable, responsive systems for real-time data exchange and control.

---

## Work Experience:

**Leap Robots,** April 2024 – December 2024

### **Robotics engineering**

As an Embedded Systems Engineer, I developed and optimized firmware using Embedded C for a variety of microcontroller-based applications, enhancing functionality and reliability across devices. I collaborated closely with cross-functional teams, integrating software, firmware, and hardware components to deliver cohesive embedded solutions. In building complex IoT systems, I applied high-level programming in Embedded C, C++, and Linux to optimize performance for real-time operations. Additionally, I designed and implemented IoT solutions for home automation, incorporating sensor integration for efficient data handling and control. My work spans extensive experience with microcontrollers, including ESP8266, ESP32, Arduino Nano and Uno, LPC2148, and LPC2149, enabling me to develop robust and reliable embedded systems tailored to diverse applications.

---

**Declaration:** I hereby declare that the above-mentioned information is true to the best of my knowledge