

NARASIMMAN V

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SUMMARY

Electronics and Communication Engineering graduate skilled in Python, C++, Embedded Systems and IoT. Eager to apply hands-on skills in an entry-level Python, Embedded, or IoT role.

EDUCATION

Anna University, Dindigul CGPA : 7.65 / 10

2022 - 2026

B.E. – Electronics and Communication Engineering

SKILLS

Programming: Python, C++

Embedded Systems & IoT: Arduino IDE, ESP32, Microcontrollers, Sensors, UART / SPI / I2C

Cloud & Tools: AWS, GitHub, MATLAB

Core Concepts: Debugging, Hardware-Software Integration

PROJECTS

Smart Traffic Signal Simulator | Python | [GitHub Link](#)

- Built a Python simulator of a 4-lane traffic signal with live Red / Yellow / Green display.
- Adjusts green time from 5 s to 20 s based on lane vehicle density.
- Shows live density bars (Low / Medium / High) and a countdown timer for the active signal.
- Added density sliders, automatic traffic changes, and Start / Stop / Reset controls.

Smart Traffic Management System | Arduino Mega, ESP32, C++

- Built a traffic control system using Arduino Mega with IR and ultrasonic sensors to detect vehicles.
- Wrote C++ logic to set green time by lane density.
- Added a wireless RF override (HC-12) to give priority to emergency vehicles.
- Added ESP32 cloud monitoring; tested against fixed-timer signals and showed shorter wait times.

EXPERIENCE

Embedded Systems Intern | Speculation Infotech, Trichy, Tamil Nadu

2025

- Programmed microcontrollers interface sensors and actuators.
- Configured ARM-based controllers by working directly with registers and managing memory.
- Worked with UART, SPI, and I2C peripherals.
- Debugged firmware issues using hardware tools to improve system reliability.

CERTIFICATION

- **AWS Skill Builder – Amazon Web Services**
- **Cybersecurity Essentials – Cisco Networking Academy**
- **Cyber Job Simulation – Deloitte**
- **Soft Skills Development – TCS iON**

LANGUAGES

- Tamil (Native)
- English (Professional Working Proficiency)