

Hari Shankar N

📧 harishankarn | 📞 +91 81974525313 | ✉ harishankarn04@gmail.com | 🌐 harishankarn | 🔗 harishankarn

Engineering student passionate about embedded systems and software development

Education

Amrita Vishwa Vidyapeetham, Bangalore India
BACHELORS IN TECHNOLOGY IN ELECTRONICS AND COMMUNICATION 2023 - Present

- Developing a strong foundation in electronics, communication systems, and cybersecurity, with a focus on integrating hardware and software to build innovative solutions.
- Skills: Embedded systems | Digital Signal Processing | Computer Networks | IoT applications

Indian Institute of Technology, Madras India
BACHELOR OF SCIENCE IN DATA SCIENCE 2023 - Present

- Exploring the intersection of data science and technology, applying statistical and computational techniques to analyze complex datasets and develop intelligent solutions.
- Skills: Statistical Analysis | Data Visualization | Machine learning | Deep Learning

Professional Experience

Digicomm Semiconductors Pvt. Ltd. Bangalore, India
EMBEDDED SYSTEMS INTERN June 2025 - Present

- Engineered firmware for **STM32 (ARM Cortex-M4)** using STM32CubeIDE, HAL drivers, and Bare-metal C
- Built custom **CMake**-based build system for STM32 bare-metal projects, enabling seamless integration with **Docker**-based CI/CD pipelines
- Contributing to debugging, peripheral interfacing, and system-level testing in a live semiconductor development environment

Embedded C | STM32CubeIDE | ARM Cortex-M4 | Bare-metal | HAL

Projects

Smart Systems for Automation and Control Bangalore, IND
EMBEDDED SYSTEMS ENGINEER 2024 - 2025

- Designed and implemented embedded systems for real-time automation, including a BLE-controlled car and mmWave-based adaptive power control
- Integrated sensor data, microcontroller firmware, and real-time control logic using C

Context-Aware RAG Chatbot System Bangalore, IND
MACHINE LEARNING DEVELOPER 2025

- Developed a chatbot powered by Retrieval-Augmented Generation (RAG) with a periodically refreshing vector database for improved context retention

Certificates

- 2024 **Semiconductor Technology & Microfabrication**, IISc Bangalore – CeNSE Summer School
- 2024 **Airborne Surveillance Systems Training**, DRDO, Centre for Airborne Systems (CABS)
- 2023 **Cloud Infrastructure and ML Esse**, Google Cloud Skills
- 2023 **Geospatial Techniques for Monitoring and Modeling Hydro-Meteorological Disaster**, ISRO
- 2023 **Embedded Programming & Microcontroller Applications**, Teachnook
- 2023 **Essentials of Cybersecurity Certification**, NSPE

Skills

| | |
|------------------|--|
| Languages | C C++ Python Bash Scripting SQL |
| Embedded Systems | Microcontrollers (ESP32, STM32, LPC2148) IoT Raspberry Pi Sensor Integration Bare-metal C STM32CubeIDE |
| Software & Tools | Git VS Code Google Cloud OOAD |
| Data Science | Transformers FAISS RAG Pipeline NLP Workflow MariaDB |
| OS & VIRT | Linux Docker |
| Cybersecurity | Network & Security Basic Cybersecurity Open Source Security Tools |
| Spoken Languages | English French Malayalam Hindi |