

NARASIMHA REDDY MANDE

2.3 years of Software Engineer | Backend Development | Python | Firmware Solutions | Network Protocols

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EXPERIENCE

Application Security Developer

Bosch Global Software Technologies

09/2024 - Present Hyderabad India

Embedded C Developer with expertise in writing efficient, industry-compliant code and conducting comprehensive developer-level testing in CANoe environments. Skilled in unit testing with VectorCAST, debugging with WinIdea, and performing root cause analysis for early bug resolution. Proficient in code reviews, seamless integration with hardware changes, and managing CI/CD pipelines using Jenkins, Git, and Visual Studio to ensure robust and reliable software delivery

- Expertise in building Embedded C code as per customer requirements and performing developer-level testing in CANoe environments
- Proficient in unit testing using VectorCAST for code coverage and early bug resolution.
- Skilled in debugging with WinIdea Debugger, identifying root causes, and implementing effective fixes.
- Experience in integrating code with new controller changes, identifying and fixing errors to ensure seamless compatibility.
- Proficient in managing build environments using Visual Studio and Jenkins, ensuring smooth CI/CD workflows post-GIT pushes.
- Expertise in conducting code reviews and merging pull requests post-build verification.

Software Engineer

Bosch Global Software Technologies

01/2024 - 08/2024 Hyderabad, India

With a robust background in Firmware Over The Air (FOTA) projects, I excel in developing cutting-edge solutions using C language and Python scripting. Leveraging my expertise in software requirements analysis, I craft code that exceeds expectations and solves complex challenges.

- Proficient in C and Data Structures & Algorithms (DSA)
- Extensive experience in developing code for FOTA projects
- Skilled in Python scripting for test automation
- Expertise in Visual Studio testing with VectorCAST tool
- Proficient in Git for version control, Gerrit for code reviews, and Jenkins for continuous integration.
- Adept at fixing customer-reported bugs to ensure top-notch product performance.
- Proven track record of delivering high-quality firmware solutions on time and within budget
- Strong problem-solving skills honed through years of hands-on experience
- Collaborative team player with excellent communication skills
- Passionate about staying updated with the latest technologies and industry trends.

SUMMARY

Embedded C Developer with expertise in writing efficient, industry-compliant code and conducting comprehensive developer-level testing in CANoe environments. Skilled in unit testing with VectorCAST, debugging with WinIdea, and performing root cause analysis for early bug resolution. Proficient in code reviews, seamless integration with hardware changes, and managing CI/CD pipelines using Jenkins, Git, and Visual Studio to ensure robust and reliable software delivery.

SKILLS

Embedded C Programming		C++	
Python	Linux	GIT	Jenkins
Visual Studio		CAPL	Canoe
WINIDEA Debugging		AUTOSAR	UDS
Infotainment testing			
Data Structure and Algorithms			CAN
Ethernet	SPI	UART	I2C

KEY ACHIEVEMENTS

- Boosted Data Transfer Rate

Increased data transfer rate by 20% using Ethernet protocol enhancements.
- Optimized Firmware Updates

Implemented FOTA solutions reducing update time by 30% for firmware.
- Enhanced Bug Resolution

Reduced bug resolution time by 15% using improved debugging techniques.
- Ensured Code Quality

Achieved 98% code quality compliance through rigorous code reviews.

LANGUAGES

Telugu	●●●●●				
Proficient					
Hindi	●●●●●				
Advanced					
English	●●●●●				
Advanced					

## EXPERIENCE

### Associate Software Engineer

**Bosch Global Software Technologies**

📅 01/2023 - 01/2024    📍 Hyderabad, India

Experienced Backend Developer proficient in Python and SCAPY, specializing in network protocol development and integration. Skilled in designing and implementing Ethernet protocols for efficient data transfer between clients and servers. Adept at generating Ethernet frames to meet specific transmission requirements, with a focus on achieving high throughput rates. Collaborative technical advisor and integrator in GUI development using Python Tkinter, facilitating seamless user interaction with ARP, UDP, and TCP protocols.

- Develop and optimize Ethernet protocols using Python SCAPY for efficient data transfer.
- Design and implement a backend system to send a targeted rate of 4 frames per millisecond (50MB/s) from clients to servers.
- Collaborate as a technical advisor and integrator in GUI development using Python Tkinter, ensuring smooth integration and functionality of ARP, UDP, and TCP protocols.
- Provide expertise in network protocol design and implementation, ensuring compatibility, reliability, and performance.
- Conduct testing and debugging to ensure the stability and efficiency of network protocol implementations.
- Collaborate with cross-functional teams to integrate backend systems with frontend interfaces and user interactions.

## EDUCATION

### Bachelor of Technology - BTech, Electrical, Electronics and Communications Engineering

**RAJIV GANDHI UNIVERSITY OF KNOWLEDGE TECHNOLOGIES, ONGOLE**

📅 07/2018 - 07/2022

### Pre University Course - Maths, Physics and Chemistry

**RAJIV GANDHI UNIVERSITY OF KNOWLEDGE TECHNOLOGIES, ONGOLE**

📅 05/2016 - 05/2018

## LANGUAGES

**Tamil**

Beginner



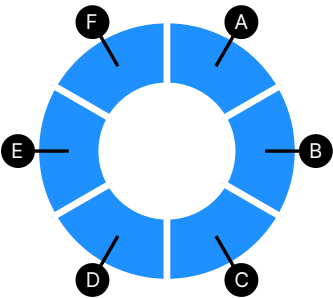
## COURSES

**Data Structure and Algorithms**

**Cybersecurity**

**Advanced python**

## MY DAY



- A** Activity / Initiative
- B** Activity / Initiative
- C** Activity / Initiative
- D** Activity / Initiative
- E** Activity / Initiative
- F** Activity / Initiative