



**ILURU DHANA LAKSHMI**

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## Summary

Aiming to contribute to the growth of an organization by leveraging my skills in software engineering and embedded systems. Seeking a challenging role that allows me to utilize my technical knowledge in network communication, embedded systems, and software development to drive innovation and success.

## Technical Skills

- Experienced in developing applications using C, C++, Embedded C, Data Structures and Golang, with basic knowledge of Python and Linux.
- Knowledgeable in Linux systems, including kernel development, process management, IPC, file system management, and scheduling algorithms.
- Familiar with network communication protocols like 3GPP (NGAP, NAS, SBI, PFCP), Non-3GPP (IPSec, ESP, ISAKMP), and GTP.
- Hands-on experience with PIC16F877A and other PIC microcontrollers, including programming in MPLAB X IDE and using PICKit. Knowledge of UART, SPI, I2C, interrupt handling, ADC, and PWM for embedded systems.
- Experienced in Docker and Docker Compose for containerization.
- Skilled in MongoDB for database design, querying, and performance optimization.
- Proficient in debugging tools like Delve (GoLang), GDB, Valgrind, and Cppcheck.
- Knowledgeable in data structures such as Stack, Queue, Linked List, Structures & Unions, Pointers & Function Pointers, and algorithms like Sorting and Searching.
- Familiar with network tools like Wireshark, Git, and Postman.
- Experienced in cloud and virtualization, focusing on VM creation for core network function deployment.
- Proficient in writing optimized code, API testing, network performance monitoring, and documentation.

## Professional Experience

- **Software Engineer:** - 01st Feb 2024 to Present [**1year**] Niral Networks Private Limited, Bangalore.

### PROJECT-1:

**Title :-** N3IWF (Non-3GPP Interworking Function)

**Team Size :** - 2

**Technologies:** C, Golang, Linux, 5G Networking, Docker, Wireshark, GDB,Delve,Postman

**Role :** - Software development Engineer-I (Developer)

**Description:**In this role, I contribute to the development and enhancement of features for the **N3IWF** project, focusing on network communication and integration in **5G core networks** for non-3GPP devices.The use of the N3IWF is to connect the core without radio using WiFi routers. I work on improving network diagnostics, security, tunneling, and packet management.

### PROJECT-2:

**Title :-** Trace

**Team Size :** - 2

**Technologies:** C, Linux, 5G Networking, Docker, Wireshark, GDB,Mongo DB

**Role :** - Software development Engineer-I (Developer)

**Description:**In this project, I am responsible for the development and implementation of **trace activation and deactivation** features, with a focus on **monitoring the UE (User Equipment) connection flow** within a 5G network. I handle the tracking of UE activities, including the **successful connection** and **failure events**, and provide valuable diagnostic insights by capturing detailed logs. These logs are store into **Mongo DB** and essential for troubleshooting and understanding network behavior.

## Technical Competencies

|                          |  |
|--------------------------|--|
| Operating System         | <b>Linux,windows,Virtualization</b>  |
| Skills                   | <b>C,C++,Embedded C,Data Structures,Golang,Linux,Python,Mongo DB</b>         |
| Software Version Control | <b>GitBucket, CI/CD</b>  |
| Tracking Tool            | <b>Git, Wireshark, Delve, GDB, Docker, Docker Compose, Cppcheck, Postman</b> |
| Development IDE          | <b>Visual Studio Code (VS Code)</b>  |
| Compliance's & Standards | <b>SDN,5G Standards, IOT Protocols, IEEE Standards</b>                       |
| Tools & GUI              | <b>GitHub, Postman,Wireshark</b>   |

## Certifications And Course Completions

- Advanced Embedded Systems Course - Bytes in Bites Institution, Bangalore
- Python Online Course - Solo Learn
- Cisco Network Academy Python Essential
- Microsoft Office Certification
- NIRALOS 5G LAB HACKATHON CERTIFICATION

## Education Details

- **B.TECH-** Electronics And Communication Engineering (2019-2023) in G.Pullaiah College Of Engineering And Technology with **8.78 CGPA**.
- **INTERMEDIATE-** Hari Hara Junior College (2017-2019) with **9.23 CGPA**.
- **SSC-** Z.P.H.School (2016-2017) with **8.2 CGPA**.

## Personal Details

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| Name             | : Iluru Dhana Lakshmi  |
| Fathers Name     | : Iluru Venkateswara Reddy   |
| Address          | : H.NO:2-0,Akkampalle (V),Sanjamala(M),Nandyal(Dist), AP-518145.               |
| Current Company  | : Niral Networks Private Limited, Bangalore                                    |
| Date of Joining  | : 01-02-2024   |
| Experience       | : <b>1 Year</b> as Software Engineer   |
| Total Experience | : <b>1 Year</b>  |
| Alternate Email  | : <a href="mailto:ilurudhanalakshmi@gmail.com">ilurudhanalakshmi@gmail.com</a> |