

# LALITHA SAMYUKTHA JAYANTHI

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## OBJECTIVE

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Motivated Data Science graduate with hands-on experience in Linux kernel development, RDMA transport stack simulation, and CI/CD pipeline integration. Proficient in C/C++/Python and passionate about low-level networking, driver development, and scalable system debugging. Seeking an entry-level role in Host Networking to contribute to high-performance systems and accelerate innovation through emerging technologies.

## EDUCATION

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Bachelor of Technology   CSE-Data Science   Avanthi Institute of Engineering and Technology   7.8 CGPA.	2025
Intermediate   Sri Chaitanya Jr. College   9.12	2021
Tenth   Sri Chaitanya School   9.5 CGPA	2019

## SKILLS

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- **Programming Languages:** C, C++, Python
- **Systems & Networking:** Linux Kernel, Device Drivers, RDMA (RoCEv2), TCP/IP Stack
- **Tools & Environments:** QEMU, Git, CI/CD (GitHub Actions, Jenkins), Docker, FPGA (basic exposure) **Debugging & Testing:** GDB, Valgrind, Wireshark, tcpdump
- **Data Science & AI:** Scikit-learn, TensorFlow, LangChain, LLMs (OpenAI, Gemini), Power BI Cloud & **DevOps:** AWS, ServiceNow
- **Other:** SQL, Jupyter Notebook, Excel, M365

## PROJECTS

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### 1. RDMA Transport Stack Simulation

Simulated RDMA behavior using Python to understand RoCEv2 protocol.  
Implemented basic transport stack and tested latency improvements in QEMU.

### 2. Linux Network Driver Development

Developed a simplified NIC driver as part of OS coursework.  
Tested functionality using QEMU and Wireshark; debugged using GDB.

### 3. CI/CD Pipeline for Network Module

Built automated testing and deployment pipeline using GitHub Actions and Docker.

Integrated unit and integration tests for a simulated network stack.

#### 4. **FPGA-Based Network Stack Emulation**

Explored FPGA emulation environments to simulate hardware-level networking.

Used simulation tools to validate protocol behavior and driver interactions.

### **INTERNSHIP**

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Tata Data Visualization: Empowering Business with Effective Insights Job Simulation	8 weeks
AI Intern at AIMER Society, contributing to innovative AI projects and research	8 weeks
ML Intern at Indian Servers, contributing to innovative ML projects and research	8 weeks
Data Science Intern at Yhills.	8 weeks
Data Science Intern at Prodigy.	4 weeks

### **CERTIFICATIONS**

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- TATA Data Visualization: Empowering Business with Effective Insights by Tata Consultancy Services and Forage.
- Google Cloud GenAI.
- GenAI 101 with Pieces by Let's Upgrade.
- SQL by Oracle.
- Data Analytics by Jobaaj Learnings.
- Infosys Springboard certification in Software Engineering and Agile development.