

Deshan Lokuge

NETWORK | TELECOMMUNICATION ENGINEERING (UG)

📍 Baddegama, Galle, Sri Lanka



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Summary

Detail-oriented undergraduate seeking opportunities in Networking, Security, and Electronics. Skilled in network security protocols and electronic system design. Committed to protecting digital infrastructure and developing innovative, reliable solutions aligned with industry standards. Strong technical foundation with a focus on system integrity.

Education

BSc. Eng(Hons.) Electrical and Information Engineering

University of Ruhuna

Major: Networking, Security and Electronics | Minor: Electrical

2022 - Present

GPA: 3.56

G.C.E. Advanced Level Examination

Richmond College, Galle

2017 - 2020

Z-Score: 1.9284

Core Competencies

- | | | |
|----------------------------------|------------------------------|--------------------|
| ▪ Python | ▪ Arduino, ESP32 | ▪ Microchip Studio |
| ▪ C, C++ | ▪ VS Code, Git, GitHub | ▪ HTML5, CSS3 |
| ▪ Linux – Ubuntu | ▪ Proteus, EasyEDA, Fritzing | ▪ Figma, Jira |
| ▪ Cisco Packet Tracer, Wireshark | ▪ ThingsBoard – Cloud, Demo | ▪ MATLAB |
| ▪ IoT, MQTT | ▪ MySQL, Visual Paradigm | ▪ React.js |

Projects

1. Offensive and Defensive PEN Tool | 🌐 Repo

- Designed and implemented a portable wireless penetration testing tool for network security assessments. Features included **Wi-Fi/Bluetooth** scanning, **MAC sniffing**, **Evil Twin** and **Portal attacks**, packet monitoring, and deauthentication attack detection.
- Applied penetration testing methods and wireless security protocols to perform offensive and defensive security evaluations focused on **PCAP analysis** and traffic monitoring.

2. IoT-Based Smart Irrigation System | 🌐 Repo

- A project under **SLT Fazenda Smart Agro** focused on designing and implementing an IoT-powered smart irrigation system prototype for precision agriculture, featuring real-time soil moisture monitoring and automated water control.
- Executed circuit design, integration with **ThingsBoard Cloud** platform for data visualization and control, and conducted system testing and calibration to ensure reliable operation.

3. PayFlow - Online Voucher Application Portal | 🌐 Repo

- Developed a web-based application to streamline reimbursement and voucher requests, improving financial management for university academic and non-academic staff. Acted as **Scrum Master**, managing Jira boards, and contributed to frontend development, including **Clerk-based authenticated user logins**, using React.js.

4. **Movie and TV Series Database Management System** | Repo

- Implemented a **MySQL-based database system** to organize movies, TV shows, cast, crew, and streaming platforms. Focused on UML design and enforcing data integrity constraints to ensure accurate and efficient management of entertainment media assets using relational database techniques.

5. **IoT - based Kitchen Monitoring System** | Repo

- Created an intelligent IoT kitchen monitoring system detecting hazardous gas leaks, extreme temperature, and humidity levels. **Enabled dual local and remote monitoring** using ESP-Dash and ThingsBoard platforms. Responsible for Arduino programming, circuit design, and developing the ThingsBoard dashboard for real-time alerts and data visualization.

6. **Stock - Management System** | Repo

- Developed a simple inventory management system for customer and supplier sales and stock management using data structures, algorithms, and **comprehensive error handling techniques**.

7. **Frequency Counter and Filter Designing** | Repo

- Designed and simulated a frequency counter and a 9th-order Chebyshev low-pass filter with a 9 kHz cutoff, using Proteus for circuit design and applying advanced analog filter design techniques.

Licenses and Certifications

- Endpoint Security: Cisco
- Java and Python Programming Certificate
- Computer Networks: Huawei
- Introduction to Cybersecurity: Cisco
- Generative AI Tools: Udemy
- Scrum Master Certification: Udemy
- Network Essentials: Cisco (Following)

Experience | Repo

Internship — SLT Telecom PLC

May 2024 - Aug 2024

- Acquired hands-on experience in enterprise-level network infrastructure, monitoring, and maintenance at SLT OPMC – Galle. Subsequently joined SLT Digital Lab, contributing to the Fazenda Smart Agro project with a focus on IoT integration for smart farming solutions.

Volunteering and Co - Curricular Involvement

- Volunteered for the Mehewara project organized by second-year undergraduates of the faculty, aimed at supporting O/L students.
- Volunteer member of the ECSL Electrician's Guide team, University of Ruhuna Team.
- Haxtreme 2.0 - Coding Competition - **2023**.
- Membership - Faculty Carrom Team, Faculty of Engineering, University of Ruhuna.

References

Dr. Thilina Weerasinghe
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