



DIDULA WIJESOORIYA

NETWORK ENGINEERING INTERN

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PROFILE

I'm a Computer Engineering undergraduate passionate about building innovative and scalable solutions. I focus on leveraging technology to solve real-world problems efficiently and effectively.

PROJECTS

1. HealthHub – Smart Hospital Management System

- Developed a full-stack hospital management system with real-time appointment handling, digital prescriptions, and secure role-based access.
- Built responsive dashboards and collaborated using Agile methodologies and Jira for sprint tracking.

Tech Stack: Java Spring Boot, React, MySQL, Jira

2. Smart Pet Feeder – IoT-Based Feeding System

- Engineered a pet feeder using ESP32 with real-time monitoring and scheduling via a React Native app.
- Integrated ultrasonic sensors for food level detection and Firebase for alerts and synchronization.

Tech Stack: ESP32, C, React Native, Firebase, Ultrasonic Sensors

3. Video Chat App – WebRTC Video Conferencing Platform

- Created a video chat application supporting HD calls, screen sharing with audio, and instant messaging.
- Used WebRTC for peer connections and Socket.io for signaling with automatic reconnection handling

Tech Stack: WebRTC, Socket.io, Node.js, Express, HTML, CSS, JavaScript

4. Research (Ongoing): Machine Learning-Based Intrusion Detection System for Public Wi-Fi

- Developing a lightweight, real-time IDS to detect Layer 2 attacks (e.g., ARP spoofing, MITM) on unsecured public networks.
- Leveraging supervised machine learning for anomaly detection with model quantization for edge deployment
- Integrating with pfSense firewall as a SmartIDS plugin for live traffic monitoring and threat mitigation.
- Simulating attack scenarios using Mininet and benchmarking against tools like Arpwatch and Snort.

Tech Stack: Python, Scikit-learn, Mininet, pfSense, Arpwatch, Snort, Wireshark

5. Online Shopping Web Application (Ongoing)

- Built a MERN stack e-commerce platform with JWT authentication and bcrypt for secure user login and password management.
- Integrated Google OTP for two-factor authentication to strengthen session security.
- Designed responsive, user-friendly interfaces with Tailwind CSS, ensuring secure API communication

Tech Stack: MongoDB, Express.js, React, Node.js, JWT, Bcrypt, Google OTP API, Tailwind CSS

EDUCATION

BSc. Engineering (Hons.) In Computer Engineering

2022 - Present

University Of Jaffna

- Relevant Coursework: Software Engineering, Software construction, Database Management Systems, Computer Networks & Security, Operating Systems, Computer Architecture, Embedded Systems Design, Data Structures & Algorithms, Machine Learning, Deep Learning, Artificial Intelligence, Advanced Networking

Diploma in Software Engineering

2021

Esoft metro campus

Advance level in physical science stream

2017-2020

Bandaranayake college gampaha

SKILLS

- **Programming Languages** : Java, Python, C++, JavaScript, HTML, CSS
- **Frameworks** : React.js, Node.js, Express.js, Arduino
- **Databases** : MongoDB, MySQL
- **Tools & Technologies** : Git, Postman, Cisco Packet Tracer, Jiraa
- **Cloud Services** : AWS(basics)
- **Network & Security** : Wireshark, WebRTC, PfSense
- **Soft Skills** : Team Collaboration, Problem Solving, Self Learning, Leadership

CERTIFICATES

- Introduction to Java (sololearn)
- Java Programming Internship at CodSoft
- Python for beginners (DP Education)
- MoraXtreme 9.0
- AlgoXplore 1.0
- Application of ATT&CK Navigator from **AttackIQ!**
- SpiritX(MoraSprit 360 orgernize)
- Cisco network basic

EXTRACURRICULAR & LEADERSHIP ACTIVITIES

- Vice President, Rotaract Club, Faculty of Engineering, University of Jaffna
- Member, Debate Team, Bandaranayake College, Gampaha
- Student Member, Institution of Engineers, Sri Lanka (IESL)
- Hobby: Playing cricket

REFERENCES

Dr. (Mrs.) J. Jananie

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