



SUMMARY

Passionate Master's student specializing in 5GC and O-RAN systems with hands-on experience in private 5G network design, IoT integration, and AI-enhanced telecom architectures.

SELECTED PROJECTS

ORAN-Based Access Gateway Function (Z-AGF)

Design Zone Gateway Function for O-RAN-based private 5G.

- **Tools:** C, C#, C++, 5G Core, NGAP, GTP-U, F1AP protocol (PDCP & RRC), F1-U protocol (PDCP & SDAP) from 3GPP, L2TP, DHCP, PPPoE
- **Outcome:** Upgrade User plane with CU as anchor of O-RAN Private Network
- **Demo:** <https://youtu.be/IcPZKkfsP-M>
- **GitHub:** <https://github.com/saffanazyan07/zy-OAL.git>

Face Recognition IoT Project

Developed face recognition capability using ESP32-CAM with RTSP streaming.

- **Tools:** PlatformIO, ESP32CAM, OpenCV integration potential, AWS
- **GitHub:** <https://github.com/saffanazyan07/face-recognition-IoT-project.git>

Wireless Sensor Network based Zigbee

Deploying Vibration Sensor Device with Zigbee Protocol with 3 type of Topology: Mesh, Star, Tree

- **Tools:** Arduino Uno, ESP 8266, Xbee Pro

Simulating UMTS (3G) using Opnet

Network simulation E2E 30 UE to email server

- **Tools:** OPNET
- **Demo:** <https://youtu.be/663xgKZfAN4?si=N4ncDZRvF-m3TDlZ>

Power Relay Bluetooth Control

Built a Bluetooth-based relay control system for smart home applications using Arduino.

- **Tools:** Arduino IDE, C, HC-04 Bluetooth module, 2-Channel relay
- **Demo:** https://youtu.be/6fnSyni_ymM?si=iKm5oslyXI2MDNT-

PROFESSIONAL EXPERIENCE

Internship

Network & Enterprise Solution, G Reign HTC | 2024

the Network & IS Operation Unit Witel Jember, Telkom | 2021

Assistent Laboratory

Basic Electrical Laboratory, University of Jember | 2019 - 2022

LANGUAGES & SOFT SKILLS

Languages: Bahasa Indonesia (Native), English (TOEFL 517)

EDUCATION

Nasional Taiwan University of Science and Technology

Electronic and Computer Engineering
2023 - 2025

The research topic is about wireless communication especially on 5G Core and O-RAN system. (C, C#, C++, Go, Linux, Wireshark)

University of Jember

Bachelor's Degree in Electrical Engineering
2018 - 2022

The research title is "Energy Consumption Analysis of Wireless Sensor Network (WSN) for Structural Health Monitoring System (SHMS) Based on Vibration Sensor in Building.

COURSES

Wireless Communication

NTUST | Aug 2023 - Jan 2024

Cloud and Fog Computing in the Internet of Things

NTUST | Feb 2023 - Jun 2023

Advanced Computer Architecture

NTUST | Aug 2023 - Jan 2024

CAREER OBJECTIVE

Seeking a role as a Network Engineer or R&D Specialist in the field of advanced wireless communication, where I can apply my knowledge of WWC in 3GPP, Cable Lab, BBF standard
GitHub: <https://github.com/saffanazyan07>

SKILLS

- C/C++
- Python
- Go
- HTML, CSS, JS
- Wireshark
- Docker
- Kubernetes
- Git
- Oracle VirtualBox
- Arduino IDE
- AWS
- Azure
- Ubuntu & Linux