Denis Wahyu Rizqullah

Fresh graduate with skills in programming, Microsoft Office, and communication. Detail-oriented, adaptable, and motivated to keep learning while contributing in a professional work environment.

Relevant Experience

Software and Hardware Developer Intern, Telkomsel

Feb - June 2024

- Designed and developed a prototype of a horizontal antenna tilt mechanism to improve signal distribution efficiency.
- Collaborated with the engineering team to integrate hardware and control systems for antenna movement.
- Documented design process, technical specifications, and performance results for future development reference.
- Applied technical knowledge in electronics, programming, and system design to solve real-world telecommunication challenges.

Educational Background

Bachelor's Degree in Computer Engineering

Brawijaya University, Malang, Indonesia
June 2021 - January 2025 | GPA: 3.80/4.00

- Relevant coursework: Embedded Systems, Computer Networks, Artificial Intelligence, Machine Learning, Database Systems, Software Engineering.

Project

Horizontal Antenna Tilt

- Designed and developed a prototype system to adjust antenna tilt angle horizontally up to 45° for optimized signal coverage.
- Integrated DC motor with gear system as actuator and implemented ESP8266-based control system for precise angle adjustment.
- Enabled wireless access and control through ESP8266's built-in Wi-Fi for improved accessibility on telecom towers.

Red Blood Cell Detection using Mobile Phone and Template Matching

- Designed and implemented a mobile-based machine learning system for detecting red blood cells from captured microscope images.
- Applied template matching algorithm with OpenCV to identify and count red blood cells automatically.
- Evaluated system performance with real microscope samples, achieving reliable detection compared to manual observation.

Weather Prediction System for Smart Plantation Irrigation

- Developed a machine learning–based weather prediction system using online datasets to support automated irrigation decision-making for plantation environments.
- Integrated environmental sensors (humidity, temperature, and soil moisture) to collect real-time data and store it as input for continuous model evaluation and prediction.
- Implemented a prediction mechanism to determine upcoming rainfall, enabling the system to delay scheduled irrigation when natural rain is sufficient, thus optimizing resource usage.
- Designed a workflow that analyzes both current environmental conditions and forecast results to minimize unnecessary water consumption and improve plantation efficiency.

Contact

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Skills

Technical Skills

- IoT & Embedded Systems
- Machine Learning Basics
- Image Processing & Computer Vision
- Web Development
- Software Engineering & System Design

Tools & Technologies

- Programming Languages: C/C++, Python
- Version Control: Git, GitHub
- IDEs & Platforms: Arduino IDE, VS Code

Languages

- Indonesia (Native)
- English (Intermediate)

Certification

- Microsoft Office Desktop Application by Trust Training Partners
- Python Developer, Sololearn