

Gunawan Firdaus

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Recently Graduated in Electronics and Instrumentation with GPA 3.65 and a strong foundation in both IoT and backend development. Proven experience as a Full Stack Developer at PPKM UGM, where I developed and maintained web platforms for MBKM Programs. Practical experience in IoT and Automation systems through roles at PAKO Group and Toyota Indonesia Academy, including PLC, HMI programming, system testing and system design. Skilled in hardware and software integration, API development, and developing systems tailored to user needs. Demonstrates strong analytical, problem-solving, and teamwork abilities, with a passion for driving innovative technology solutions.

Organization and Experiences

Full Stack Developer | Sep 2024 – Dec 2024 | Pusat Pelaksana Kampus Merdeka (PPKM) UGM | Yogyakarta

- Developed and maintained website platforms for MBKM programs include MSIB and KM, supporting 20,000+ users.
- Managed microservices databases for the MSIB and KM programs.
- Completed 25+ tasks related to bug fixes, database updates, and documentation.
- Created documentation for platform updates and monthly reports

4.0 Jr. Specialist | Nov 2023 – Apr 2024 | PT. Inkoasku (PAKO Group) | Karawang, West Java

- Developed digital systems to address operational challenges
- Validated system functionality through system testing and user acceptance testing
- Implemented Industry 4.0 projects for efficiency improvements
- Communicated project status through regular reports and presentations
- Analyzed digital system problems using 4M+1E and 5W+1H techniques

Supporting Project Internship | Mar 2022 – Aug 2022 | Toyota Indonesia Academy | Karawang, West Java

- Developed technical documentation for Smart Classroom projects
- Implemented Industrial IoT simulators using PLC OMRON
- Conducted system testing and developed UAT reports
- Developed API integrations using FastAPI (Python) for PLC devices and servers

Hardware Programmer | Nov 2019 – Dec 2021 | Gadjah Mada Aerospace Team | Yogyakarta

- Developed program to control autonomous system use IMU BNO055, BME280, Servo, GPS NeoM8N, and Microcontroller (Teensy)
- Implemented wireless sensor data transmission using XBee S2C 2.4 GHz modules
- Calibrated BNO055, GPS NeoM8N, and BME280 sensors, ensuring accurate data acquisition and system performance

Education

Universitas Gadjah Mada | Yogyakarta

Bachelor Degree of Electronics and Instrumentation | GPA 3.65

Thesis Title : Implementation of MQTT and COAP on IoT-Based Realtime Monitoring System

Aug 2019 – July 2023

Skills

Team Work, Project Management, Analytical Thinking, Root Cause Analysis, Problem Solving

Programming Language : Golang, JavaScript, Python, C/C++

Framework : Vue, Echo, Express, FastAPI

Databases : PostgreSQL, Redis, MySQL, MongoDB

IoT and Automation : Arduino, ESP, Teensy, MQTT, CoAP, Raspberry Pi, PLC (Omron, Schneider), HMI (Omron & Weintek)

Office : Word, Excel, PowerPoint