

Gunawan Firdaus

gunawan.firdaus99@gmail.com | +6289696568470 | Kebumen, Jawa Tengah | <https://github.com/gufir> | <https://linkedin.com/in/gunawan-firdaus> | Portfolio: <https://gunawanfir.xyz/>

Recent Graduated in Electronics and Instrumentation (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 programming and system testing. Skilled in hardware and software integration, API development, and building scalable systems. Demonstrates strong analytical, problem-solving, and teamwork abilities, with a passion for driving innovative technology solutions.

Organization and Experiences

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

- Developing and maintaining website platforms for MBKM (Merdeka Belajar Kampus Merdeka) programs, including Magang dan Studi Independen Bersertifikat (MSIB) and Kampus Mengajar (KM)
- Managing and maintaining microservices databases for the MSIB and KM programs, ensuring data availability, scalability, and consistency
- Completing tasks related to bug fixes, database updates, document updates, and other relevant duties
- Creating documentation for MSIB platform updates and monthly reports

PAKO Group | Karawang **4.0 Specialist | Nov 2023 – Apr 2024**

- Monitoring Digital System in the factory
- Create and developed digital system on the factory based on pain point other departments
- Performing System Test and Create User Acceptance Test
- Present and report of digital systems being developed
- Manage several projects such as gas consumption monitoring, autoscan cutting line and E-LHP
- Analyze problems in digital system use 4M + 1E and 5W + 1H method

Toyota Indonesia Academy | Karawang **Supporting Project Internship | Mar 2022 – Aug 2022**

- Creating Documentation and Reports Smart Classroom Projects
- Creating Industrial IoT Simulators use PLC OMRON CP2E-N60DT-D and HMI NB7W-TW00B
- Performing System Testing and Creating User Acceptance Tests as test results reports
- Performing Wiring Panels based on Electrical Drawing
- Building API to connect PLC and Servers use FastAPI Python

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

- Developed program to control autonomous system use IMU BNO055, BME280, Servo, GPS NeoM8N, and Microcontroller (Teensy)
- Make Program to send sensor data use Xbee S2C 2.4 GHz
- Calibrating sensor BNO055, GPS NeoM8N and BME280

Education

Universitas Gadjah Mada | Yogyakarta
Bachelor Degree of Electronics and Instrumentation
Aug 2019 – Jul 2023
GPA 3.65

Skills

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

Tools and Technologies

Backend and Frontend : Golang (Gin, Echo), NodeJS(ExpressJS), Python (FastAPI), Vue

Database : PostgreSQL, Redis, MySQL

IoT : Arduino, ESP, Teensy, MQTT, CoAP, Raspberry Pi, PLC, HMI

Office : Word, Excel, PowerPoint