

# FIQRI NURFADILLAH

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Active as a IoT Engineer with a proven track record of integrating advanced analytics into IoT platforms and creating impactful designs as a Freelancer. Excelled in enhancing data-driven decision-making and performance through innovative solutions. Skilled in Hardware, Robotic, Writing and Effective communication, demonstrating a strong ability to lead projects and adapt to diverse technological demands.

### **Education**

#### IPB University - Bogor City, Indonesian

Aug 2020 - Aug 2024

Bachelor of Computer Engineering Technology, 3.93/4.00

 Taking courses in IoT Development, Embedded Systems, Robotics Technology, Digital Systems Design, Electromechanical Workshop Technology, Computer Organization dan Architecture

# **Project and Work Experience**

### Sekolah Vokasi IPB University - Bogor City, Indonesian

Jan 2023 - Jul 2024

Assistant Lecturer (Work)

- · Adapted lesson plans based on student feedback and progress data, ensuring optimal content delivery for improved understanding.
- Made 10 learning videos and 14 PPTs for each lecture meeting
- PIC in making 11 final semester projects of computer engineering technology students

#### THERMOLOG - Bogor City, Indonesian

Nov 2023 - May 2024

IoT Engineer (Project)

- Designing an IoT system architecture, including temperature and humidity sensors, microcontrollers, and communication modules.
- Integrate temperature and humidity sensor (DHT22) with ESP32.
- Implemented analytic algorithms to process temperature and humidity data and provide recommendations or automated actions with an effective value of 200%.

### R-CAT (Remote-Controlled Automatic Tiller Robot) - Bogor

Aug 2023 - Apr 2024

City, Indonesian

Project Owner (Project)

- Supervising the integration of the FlySky control system with the robot.
- Writing and testing software code for the robot's control systems, including firmware for microcontrollers ESP32 with Arduino IDE.
- Built a prototype robot with a maximum speed of 3.9 m/s with 37.3 RPM and a range of 179 m.

### RSV (Robot Sprayer Vehicle) - Bogor City, Indonesian

Jan 2023 - Mar 2024

Control System and Electrical Engineer (Project)

- Programming microcontrollers (ESP32, Arduino Mega) and single board computer Jetson Nano to manage the robot's functions.
- Integrating various sensors for navigation and obstacle avoidance.
- · Installing and connecting all electrical components on the robot.

# ENRAY (Enhancement Ray) - Bogor City, Indonesian

Jun 2023 - Sep 2023

Project Owner (Project)

- Conceptualize a suitable control and monitoring device for the condition of the BSF cages.
- Integrate solar panel and battery power source to power the device.
- Make a PCB design.

# MATOBOT (Tomato Ripeness Robot) - Bogor City, Indonesian

Jan 2023 - Jul 2023

Mechatronics Engineer (Project)

- Design and develop the mechanical structure of the robot, including the chassis, mobility system, and robot arm.
- · Ensuring proper power distribution and signal processing throughout the robot with a remote distance of up to 70 meters.
- Building the robot prototype tests to validate the design concept & system functionality with detection accuracy values reaching 80%.

### AGENS (Artificial Intelligence Internet of Fishes) - Bogor,

Aug 2022 - Dec 2022

Indonesia

IoT Engineer (Project)

- Designing the electrical system architecture, including power distribution, wiring, and circuitry layout.
- Integrating control devices for the aerator, such as motor drivers or relay modules, into the electrical system.
- Published 1 copyright letter and 3 mass media articles by 2022.

# **Organisational Experience**

#### Wapemala Sumedang - Bogor, Indonesia

Head of Multimedia and Social Media Division

- Increased social media followers by 1000, created 288 posts, brought in 420 participants at the annual event.
- Help create sponsorship proposals and get 4 permanent sponsors for each event.
- · Produced 3 promotional short films to continue education.

### Micro IT Community - Bogor City, Indonesia

Dec 2020 - Dec 2022

Software, Hardware, and Networking Divison Member

- Successfully received funding in the Village Community Empowerment Program (P2MD) from the Directorate General of Vocational Studies in 2022
- Leading more than 20 people from various teams, such as logistics, event organizers, and human resources from various study
  programs in the Village Community Empowerment Program (P2MD) activities organized by the Indonesian Vocational Directorate
  General in 2022.
- · Participate in training on the use of Arduino IDE, microcontrollers and IoT.

### Obscura Photography Club - Bogor, Indonesia

Oct 2020 - Nov 2022

Head of Multimedia and Social Media Division

- · Planning the development of social media, content, events and internal branding.
- successfully created 100+ Instagram posts and 10+ content for event branding.
- Successfully held a photography and painting exhibition which presented 350 participants and collected 30 of the best works.

### **Achievements, Certification and Skills**

- Dicoding Academy ②: Visualisasi Data (Sept 2024)
- Cisco Certified Network Associate ⊙: Cyber Ops (Jun 2023); Network Security (Dec 2022); Enterprise Networking, Security, and Automation (Jun 2022); Routing and Switching (Jun 2022); IT Essentials PC Hardware and Software (Dec 2021)
- Hard Skills: Python, C++/C, Arduino IDE, Blynk, OSI model, TCP/IP model, Routing protocol, Fritzing, MATLAB, Ultimate Cura, Lotmaxx, Visual Studio Code, Adobe (Photoshop, Premiere Pro, Ilustrator, Indesign, After Effect), Microsoft Office
- Soft Skills: Leadership, team work, design thinking and partnership, public speaking

Aug 2020 - Present