



RANIA NAJLA ABDILLAH

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South Bekasi, Bekasi, West Java

Computer Engineering Technology student at IPB University with internship and project experience in IoT, web development, and multimedia. Skilled in ESP32-based systems, 3D design, and digital content creation. Active in organizations with strong teamwork, time management, and problem-solving abilities. Aspiring to work in applied technology and smart device solutions.

Work Experience

PT Binayasa Putrabatara - Jakarta, Indonesia

January 2025 - May 2025

Internship

- Managed personal and attendance records for 2,000+ employees, ensuring data accuracy and consistency.
- Developed a web-based inventory system to track 500+ items.
- Assisted in multimedia operations for corporate events.
- Created an IoT system for automated daily anthem playback.

PT Bank Tabungan Negara (Persero) Tbk Bekasi - Bekasi, Indonesia

July 2024 - August 2024

Internship

- Processed 100+ per-day customer data entries and verified information for accuracy.
- Manage records and coordinate with departments for compliance.
- Enhance attention to detail, data management skills, and knowledge of the housing finance industry.

Educational Background

IPB University - Bogor, Indonesia

August 2022 - Present

Bachelor of Computer Engineering Technology, 3.34/4.00

Project Experience

Si Cita

Si Cita: Sistem Cerdas Citarum

- Designed and implemented an IoT system using ESP32 and 4 types of sensors (pH, sedimentation, water level) to monitor water quality in Citarum River.
- Connected the system to the Blynk cloud platform for real-time data storage and environmental monitoring.

Automation of Playing the Indonesia Raya Anthem

Song Automation Using RTC, DFPlayer, and ESP32

- Designed the circuit and 3D casing for an IoT system automating the daily playback of the Indonesia Raya anthem at 10 AM as the hardware engineer.
- Integrated ESP32 and DFPlayer Mini for audio playback control, synchronized with an RTC module.
- Connected the system to office speakers using a TRRS connector, supporting the tradition of listening to the national anthem daily.

Automatic Seed Planter

Robotic Planning Design

- Designed a 3D model of the Automatic Seed Planter in Fusion 360, including a seed dispenser, motorized drive, and obstacle detection system using an HC-SR04 sensor.
- Created a project proposal outlining objectives, technical specifications, and a cost estimate, targeting a planting capacity of up to 100 seeds per cycle with an expected cost reduction of 20% compared to manual planting.

SoltarinE

Solar Charging Station Eco Friendly using solar panels

- Built the SoltarinE: Solar Charging Station as a real working prototype for eco-friendly device charging using solar power.
- Equipped with 4 AC outlets and USB ports to charge multiple devices simultaneously.
- Designed the official logo of the device and created a 60-second promotional video, reaching 10,000+ views on Instagram.

Pedestrian Crossing Light

Pedestrian Crossing Light using Arduino Uno

- Designed 3D model for pedestrian crossing light system using Fusion 360.
- Programmed control logic for pedestrian and vehicle signals using WinCUPL.
- Implemented push button for pedestrians to request safe crossing, triggering traffic light changes.
- Integrated real-time signal control to manage pedestrian and vehicle light synchronization.

Rain Detector

Rain Detector using Rain Sensor

- Built a Rain Detector system using a rain sensor, buzzer, and LED indicator.
- Designed with a simple electronic circuit to detect rainfall and provide real-time alerts.

Committee and Organizational Experience

Agrimovie - Bogor, Indonesia

November 2023 - November 2024

Head of Education and Acting Division

- Head of Education and Acting Division at Agrimovie, a filmmaking organization with four main divisions.
- Led activities such as benchmarking with external parties, conducting filmmaking training, and creating educational content about the film industry.

OMI 2024 - Bogor, Indonesia

February 2024 - August 2024

Sponsorship Division Staff

- Part of the Sponsorship Division for OMI (IPB Student Olympiad), organized by BEM KM IPB.
- Responsible for securing sponsors, managing partnerships, and creating sponsorship content including proposals, promotional materials, and Instagram posts.
- Produced Instagram content that gained over 20,000+ views, increasing sponsor visibility and engagement.

IPB Cup - Bogor, Indonesia

October 2023 - November 2023

Logistics and Transportation Division Staff

- Staff in the Logistics and Transportation Division for IPB Cup, a national-scale sports competition organized by IPB University.
- Responsible for providing transportation, necessary items, creating and managing event decorations for all divisions, from preparation to completion.

MPKMB SV 60 - Bogor, Indonesia

May 2023 - September 2023

Program Study Coordinator Division Staff

- Staff in the Program Study Coordinator Division for MPKMB SV 60, the New Student Orientation for IPB University Vocational School, Class of 60.
- Guided over 100 new students in the study program and supported the orientation of 20,000+ new students at the faculty level.
- Provided essential information and directions, and designed Instagram feeds and twibbons as promotional materials for the event.

BEM SV - Bogor, Indonesia

January 2023 - December 2023

External Affairs, Research, and Media Bureau Staff in Media and Publications

- Responsible for managing external relations, conducting research, and overseeing social media.
- Managed the Instagram feed and handled social media publications for BEM Vocational School of IPB University.
- Part of the design team, creating feeds, videos, certificates, and plaques for various programs.

Pemira 24 - Bogor, Indonesia

August 2022 - November 2022

Publication, Design, and Documentation Division Staff

- Managing the Instagram feed and creating content for Pemira 24th election information.
- Designing materials for Pemira 24th, including banners, certificates, and other required items.
- Documenting the Pemira 24th event.

Skills

- **Hard Skills:** Content Creation, Social Media Management, Figma, Canva, Adobe Illustrator, Video Editing, Microsoft (Word, Excel), Python, Fusion 360, Fritzing, Proteus, vMix, Web Development (HTML, CSS), Arduino IDE
- **Soft skill:** Leadership, Team Collaboration, Event Management, Problem Solving, Time Management, Adaptability, Coordination, Resource Management