

BAYU YUDISTIRA RAMADHAN

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SUMMARY

A results-oriented Computer Science student from Udayana University with hands-on experience in full-stack development. Proficient in building and maintaining scalable web applications using PHP Laravel, Vue.js, and React. Combines strong software development fundamentals with practical IoT and hardware integration experience, eager to contribute to innovative, user-centric solutions.

PROFESSIONAL EXPERIENCE

PT Econdelight

Badung, Bali

Full Stack Developer | Internship

Aug 2024 – Sep 2024

- Developed and maintained a full-stack hotel website using PHP Laravel for the backend and React for the frontend.
- Implemented and optimized PostgreSQL database queries to enhance application performance and ensure scalability.
- Utilized Git for version control and collaborated within an Agile framework, actively participating in daily stand-ups and sprint planning.

PROJECT EXPERIENCE

IoT-Based Automatic Door Control System

2024

- Developed an **ESP32**-based automatic gate system with **RFID/PIN authentication** and proximity sensors for secure residential access control.
- Integrated conductive foil sensors on handles to differentiate interior/exterior access and **servo actuators** for automated gate operation.
- Implemented **intelligent positioning control** with magnetic sensors to ensure precise gate movement and safety stops.

Soil Moisture and Temperature Detection for Aloe Vera Cultivation

2023

- Designed and simulated an IoT-based system to maintain optimal growing conditions for Aloe vera by monitoring soil moisture and temperature.
- Utilized an **Arduino Uno** to process real-time data from an **LM35 temperature sensor** and a **SEN1 soil moisture sensor**.
- Developed a Fuzzy Logic control system in **MATLAB** to automatically activate a water pump and fan, ensuring ideal conditions are maintained.
- Built and tested a virtual prototype of the complete hardware circuit using the **Tinkercad** simulation platform.

EDUCATION

Udayana University – Badung, Bali

Sep 2022 – Sep 2026 (Expected)

Majoring in Computer Science | Wireless Sensor Network | GPA: 3.74/4.00.

PUBLICATIONS

Simulasi IoT Pemantauan Tanaman Lidah Buaya Berbasis Algoritma Fuzzy

2024

- Published in Jurnal Nasional Teknologi Informasi dan Aplikasinya, Vol. 3 No. 1, pp. 189-194.
- First author. Developed IoT-based monitoring system using fuzzy logic algorithm for optimal Aloe vera cultivation conditions.

COMMITTEE EXPERIENCE

Event Organizing Committee Member of SUPREMASI XVII

2024

- Meticulously created a detailed event rundown and managed the timeline to ensure seamless execution.
- Consult with event presenters and performers, verifying their readiness and preparation to facilitate a successful celebratory program.

- Designed and executed innovative ticket distribution strategies, including targeted outreach campaigns and streamlined registration processes, resulting in successful event promotion.
- Led comprehensive ticket sales operations, encompassing form design, financial tracking, and performance analytics.

SKILLS

- **Programming Languages:** PHP, Python, JavaScript, C
- **Frameworks & Libraries:** Laravel 11, React, Bootstrap
- **Databases:** PostgreSQL
- **Tools & Technologies:** Git, Visual Studio Code, AUTODESK Tinkercad, MATLAB
- **Hardware:** ESP32, Arduino Uno
- **Languages:** Indonesian (Native), English (Advanced)