

Rahiim Tahajjadan Zhaahir Haq

Bogor 16128 | [linkedin.com/in/rahimhaq](https://www.linkedin.com/in/rahimhaq) | +6281282315552 | <https://www.instagram.com/rahimhaq> | rahimtahajjadanzahirhaq@gmail.com

SUMMARY

Bachelor of Applied Computer Engineering Technology from IPB University with dual specialization in Embedded Systems and Full Stack Web Development. Experienced in research and development of hardware for satellite technology at BRIN's Satellite Technology Research Center, including PCB design and microcontroller programming (STM32, ESP32). Currently undergoing an intensive bootcamp to deepen expertise in MERN stack technologies (MongoDB, Express.js, React, Node.js). This unique combination of hardware and software expertise is ideal for roles that bridge physical devices with cloud platforms and web applications, such as in the fields of IoT, automation, and aerospace.

EDUCATION

IPB University

Computer Engineering Technology/Applied Bachelor's
GPA 3.57/4

Bogor

August 2021 – August 2025

WORK EXPERIENCE

BRIN Satellite Technology Research Center

Research Assistant (Internship)

Bogor

July 2024 - Present

- Developed satellite communications software based on GNU Radio and SDRAngel to control and automate the process of transmitting and receiving APRS signals using Software-Defined Radio (SDR) devices such as ADALM-Pluto
- Designed and schematicized and layout PCBs for the development of On Board Computer (OBC) microcontroller-based satellites STM32H7 using EasyEDA, supporting miniature avionics systems for next-generation satellites.
- Debugging and testing of hardware and software systems to ensure the stability and reliability of satellite communications.

PROJECT EXPERIENCE

Embedded System

Prototype of On-Board Computer Satellite

Bogor

January – May 2025

- Engineered and developed a functional prototype of an Embedded Computer (OBC) for BRIN NEI Satellites, utilizing state-of-the-art STM32H753VIT6 microcontrollers.
- Responsible for the entire hardware lifecycle from component selection, schematic design, and PCB layout to firmware programming and system integration.
- Successfully validated the core functionality of the OBC, demonstrating its potential for future national satellite missions

Capstone Cyber Security

Website Port Scanning - UI UX & Frontend Engineer

Bogor

February – June 2024

- Build open port detection web applications on servers using HTML, CSS, and JavaScript on the front-end side and Flask on the back-end
 - Generate intuitive and responsive interface designs through Figma, including wireframes, mockups, and interactive prototypes.
 - Assist teams in identifying security gaps and mitigating potential cyberattacks through informative visualization of port scan results.
- Improve the efficiency of frontend-backend team collaboration through stable and well-documented REST API integration.

Internet of Things (IoT)

IoT-Based Fish Automated Metered Feed System – Software Engineer

Bogor

February – July 2024

- Developed firmware on the Arduino Uno that controls the temperature sensor (DS18B20), TDS sensor, pH sensor, DC motor, and servo to automatically adjust the fish feed dose.
- Integrate the system with Blynk IoT applications using ESP8266 modules for remote monitoring and control.
- Perform real-time debugging and system validation in the field to ensure data accuracy and reliability of device actuation.
- Contribute to the development of a smart aquaculture system that is cost-effective and easy to use by local farmers.

Sistem Tertanam (Embedded System)

Vending Machine Karaoke – Hardware Engineer

Bogor

July – November 2023

- Built an automated karaoke machine system integrated with coin acceptors, relays, as well as AC/DC power conversion and DC/DC step-ups, controlled via ESP32 microcontroller.
- Responsible for the assembly of the machinery hardware and casing, as well as final testing to ensure the machine functions in a public tourist environment (implemented at the Cikoneng Waterfall tourist site).
- Improve the user experience with a web-based interface that can automatically set the duration of use and control the music

LEADERSHIP/ORGANIZATIONAL EXPERIENCE

Alumni Career Center – IPB Vocational School Alumni Association

Bogor

Membership & Social Media

January 2024 - Present

- Make branding posters related to information on job vacancies, internships, activities and so on that are published on the Instagram Alumni Career Center.
- Make an attractive design for acc_svipb Instagram social media.

DKM Al Ghifari Mosque IPB

Bogor

Head of Takmir of Al Ghifari Mosque IPB

August 2023 – August 2024

- Leading and supervising 10 members who serve as treasurers, secretaries, public relations and publications and facilities for mass infrastructure.
- Supervise the implementation of activities that require funds such as Ramadan, Eid al-Fitr, Eid al-Adha.
- Lead and supervise the building, facilities and infrastructure of the mosque.
- Supervise the recruitment process of the committee at committee events such as Eid prayers, Eid al-Adha/qurbani by facing 1000 worshippers.

ABILITY

Languages: Inonesian (Native), English (Basic), Arabic (Professional)

Programming Languages: JavaScript, Python, C/C++ (for microcontrollers)

Frontend: React, HTML5, CSS3, JavaScript (ES6+)

Backend: Node.js, Express.js, Flask

Databases: MongoDB, MySQL

Hardware & Embedded: STM32, ESP32, Arduino, PCB Design, System Debugging

Software & Tools: Git, EasyEDA, STM32CubeIDE, Figma, GNU Radio, Canva, CorelDaw

Others: Python and JavaScript Programming Languages, MySQL, UI UX Designer, HTML, CSS, API Development, Control System Management, System Optimization, Content Editing, Computer Experts, Business Knowledge, Organizational Skills, Interpersonal Communication and Language.

Core Competencies: Cyber Security, Full-Stack Development, Internet of Things (IoT), Embedded System, UI/UX Design, API Development.

CERTIFICATIONS/COMPETENCIES

Dumbways Bootcamp – Full Stack Developer

July 2025

CertNexus – CyberSAFE

[Certificate.pdf](#)

Bisa AI Academy – CyberSAFE

June 2024

[Certificate.pdf](#)

Bisa AI Academy (Cyber Security) – MSIB Batch 6 Merdeka Campus

June 2024

[Certificate.pdf](#)