Mohamad Nouval Amrullah

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EXECUTIVE SUMMARY

Computer Engineering Technology Student with a Passion for Innovation
I am a sixth-semester Computer Engineering Technology student with a strong passion for technology, especially programming. My curiosity drives me to continuously learn, think creatively, and solve problems efficiently.

With a keen interest in technology, I am motivated to explore new projects and challenges, enabling me to refine my skills and gain valuable experiences. I believe that a combination of curiosity, critical thinking, and creativity is the foundation for impactful innovation.

EDUCATION

Bachelor in Computer Engineering, College of Vocational Studies   Aug '22 – Now
of IPB University
- GPA: 3.34 / 4.00 (Temporary)
- Relevant Courework: mobile application, web progamming, network application administration, software engineer.

WORKING EXPERIENCES

(PKL), (Depohar 10 Sathar 15)   Jan–Mar '22
- Aircraft Engine Cable Troubleshooting identifying, analyzing, and resolving issues within the electrical wiring system of aircraft engines. This includes inspecting cable connections, performing measurements with specialized tools, and ensuring the system operates optimally according to aviation standars.

(Internship Backend Developer), (PT. Aero System Indonesia)   Feb–Mei '25
- I am currently an intern working on developing a real-time monitoring system using the ELK (Elasticsearch, Logstash, Kibana) stack and Fluent-bit to implement a log service running on Docker. My main tasks involve utilizing Elasticsearch and Logstash, parsing data via URL/port from Elasticsearch into a Laravel 10 project. The goal of this implementation is to display real-time log service data efficiently.

(Freelance Full Stack Developer)– *Custom Sales & Invoicing System*   Mei-Jun'25
for Traditional Market Business
- Developed a full-stack web-based system to manage product pricing, orders, delivery, and invoicing for a real-world client operating in the traditional market sector.
- Designed a complete **Entity Relationship Diagram (ERD)** and implemented a normalized relational database schema using **PostgreSQL** (12+ related tables).
- Built multi-step input forms using **Laravel Blade and JavaScript**, enabling user-friendly workflows for inputting customers, products, pricing by period, and order creation.
- Implemented complex business logic for handling **partial deliveries**, **invoice creation from delivery notes**, and **price tracking based on customer and time period**.
- Developed **real-time invoice PDF and delivery note PDF generation** using DomPDF.
- Managed **authentication**, **dashboard views**, and **user interface components** such as sidebars and navigation bars using Laravel's built-in tools.
- The system is now actively used by the client for their daily business operations.

MAKING PROJECT EXPERIENCES

(Student), (Computer Engineering)   Aug '22 – Now

Museum Alarm Sensor:
- Designed and built a motion detection alarm system to enhance museum security.
- Created the schematic and PCB layout using Fritzing and assembled the circuit using Arduino and PIR motion sensors.
- Responsible for soldering and debugging the system to ensure real-time functionality.

Clock Project:
- Developed a precise digital clock system using ICs and Arduino-based microcontrollers.
- Programmed real-time clock display via 7-segment displays and designed the PCB layout using Eagle.

Aquarium Water Pump Automation System:
- Designed an automatic water pump control system for aquariums using water level sensors and microcontrollers.
- Implemented control logic using a GAL16V8 IC and created the schematic and PCB layout.
- Successfully built an automated system that activates the pump based on water levels, optimizing energy efficiency.

Software Engineering – Application and Website:

Website Development:
- Built various applications and websites using Java, Laravel, React.js, Next.js, and PHP.
- One of the key projects involved developing an employee information system using Laravel, including features such as authentication, data management, and a real-time dashboard.
- Implemented RESTful APIs, user authentication, and MYSQL database integration.

HONORS & AWARDS

(Runner up) of (In The Internasional Final Paper Competition   Jul '23
Of Circular Economy), (College Of Vocational Studies 2023)
- Role in the Project
  As part of the winning team, I was responsible for hardware development to support the implementation of Circular Economy in sustainable agricultural products.
  Main Contributions:
  Designing and assembling schematic and hardware layouts.
  Utilizing tools such as microcontroller.

SKILLS

Hard Skills :
- Experience in using various programming languages such as JavaScript, Java, PHP, HTML, and CSS in developing web-based applications, demonstrating technical competence in building responsive and efficient digital solutions.
- Proficient in modern frameworks and libraries such as React.js, Next.js, and Laravel to build interactive user interfaces and manage the backend of applications.
- Skilled in utilizing development and collaboration tools such as Git and Github, and capable of applying containerization concepts using Docker in the application deployment process.
- Familiar with the Python programming language and the Google Colab platform for data analysis and basic machine learning exploration. Have basic experience using Python libraries such as NumPy, Pandas, and Matplotlib for data manipulation, statistical analysis, and data visualization.
- Capable of using circuit design and simulation software such as Proteus, Eagle, and Fritzing for hardware development based on Arduino.
- Experienced in working with various databases including MongoDB, PostgreSQL, and MySQL for efficient data storage, retrieval, and integration in both web and backend systems.
- Experienced in networking concepts including Cisco networking equipment, TCP/IP, DNS,

DHCP, VLAN, and basic routing and switching.
- Hands-on experience configuring Cisco devices and troubleshooting networks, supported by holding a Cisco certification.
- Accustomed to preparing documents using Microsoft Word and performing data analysis using Microsoft Excel.

Soft Skills :
- Effective communication demonstrated in various team activities, able to convey ideas clearly and accept feedback constructively.
- Highly creative, as shown in solving technical problems and designing projects in both software and hardware contexts.
- Able to think critically and analytically in evaluating technical solutions and making decisions based on data and user needs.
- Flexible and adaptive in dealing with changing situations and cross-divisional tasks, capable of working under pressure while maintaining output quality.
- Experienced in working in multidisciplinary teams, managing task distribution, and completing work on time with good time management