Muhamad Naufal Al Ghani

BACKEND DEVELOPER | AI/ML ENGINEER | DATA SCIENCE

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PROFESSIONAL SUMMARY

I am a fresh graduate in Informatics Engineering from Bandung State Polytechnic (August 2025) with strong interests in backend development, artificial intelligence, and data science. During my studies and internship, I developed backend systems using Java Spring Boot, gRPC, WebSocket, and microservices architecture, including a CMS simulator project at PT LEN Industri that enhanced integration testing efficiency.

I have experience in designing and implementing deep learning pipelines using Python and PyTorch, demonstrated in my final research project on land cover semantic segmentation using a modified U-Net SK-ResNeXt model. The research is currently under review at a SINTA 2-indexed journal.

Selected as one of 600 participants out of 13,600+ applicants for the Laskar AI program, I received intensive training in machine learning and data science through a collaboration between Lintasarta, Dicoding, and NVIDIA. Additionally, I have worked on various real-world projects, including a hit song prediction system using Spotify data, a financial management web app, and a food delivery microservices application using Kafka.

I am proficient in Java, Python, Golang, PostgreSQL, MySQL, Docker, and REST/gRPC APIs. With a strong foundation in backend systems, clean code practices, and applied AI/ML knowledge, I am ready to contribute to teams focused on building scalable, data-driven solutions.

EDUCATION

Informatics Engineering, Bandung State Polytechnic (Agt 2021 – Agt 2025)

- **GPA :** 3,61 / 4.00
- **Last Project :** Reserch about GIS (Geographic Information System) with title is "Optimization Accuracy of U-Net SK-ResNeXt Model through Decoder Modification on Semantic Segmentation of Land Cover Based on Satellite Image Data".
- Published last project research at SINTA 2-Indexed "Decoder-Enhanced U-NET SK-ResNeXt for Land Sover Semantic Segmentation" to IJCSS (Indonesian Journal of Computing and Cybernetics System) (in review, 2025)

Data Science & AI/ML Engineer Cohort, Laskar AI (Feb 2025 – July 2025)

- Selected as one of 600 participants in the Laskar AI program from over 13,600 applicants.

- This prestigious scholarship, initiated by Lintasarta in collaboration with Dicoding and NVIDIA, provides intensive training in Machine Learning and Data Science to cultivate Al talent and drive technological innovation in Indonesia.

WORK EXPERIENCE

Backend Developer, PT Swamedia Informatika – Bandung, Indonesia (Sept 2025 – present)

- Develop integrated ticketing system for PT ASDP Ferry Indonesia (Persero), ensuring scalability, reliability, and seamless user experience.
- Design and implement surrounding systems to support the core ticketing platform, improving interoperability with external services and internal modules.
- Collaborate with cross-functional teams (frontend, Database Engineer) to ensure high-quality deliverables within project timelines.

Backend Developer (Internship), LEN Industri (Persero) – Bandung, Indonesia (Jun 2024 – Oct 2024)

- Placement at PT Len Innovation Technology (subsidiary from PT Len Industri (Persero)).
- Designed and developed a simulator application for CMS system testing using Spring Boot, gRPC, WebSocket, and Envoy Proxy, improving the speed and efficiency of internal integration and functionality testing.
- Performed web scraping of data from various Facebook sources and processed the information into a Neo4j graph database for relational data analysis.
- Contributed to the adoption of a microservices architecture and efficient inter-service communication, enhancing the scalability and maintainability of backend systems.
- Documented development and testing processes to support knowledge transfer and serve as technical references for the development team.
- Exploration backend side development using Golang.

PROJECT EXPERIENCE

Optimization Accuracy of U-Net SK-ResNeXt Model through Decoder Modification on Semantic Segmentation of Land Cover Based on Satellite Image Data – (Feb 2025 – June 2025)

- Develop pipeline deep learning from data preprocessing into model evaluation.
- Implement architecture model U-NET SK-ResNeXt and modified it for better semantic segmentation land cover accuracy.
- Impementation modified U-NET SK-ResNeXt from scratch using python and pytorch.

Spotify Hit Song Prediction (Sept 2023 – Dec 2023)

- Built a system to predict whether a song will be a hit or not based on feature data taken directly from the Spotify API.
- Performed system analysis with data/process modelling
- Developed API in backend side using Flask and integration model prediction.

Finance Management Web Development (Oct 2023 – Dec 2023)

- Lead team to develop finance management web application.
- Designed system architecture and PostgreSQL database structure.
- Performed system analysis with data/process modeling.
- Developed Fullstack web application for financial management using Express.JS, React.JS, PostgreSQL.
- Documented development process for scalability and maintenance.

Backend FTGO (Food to go) Microservice Application (March 2024 – Jun 2024)

- Create an FTGO application by implementing the concept of microservices and kafka message broker.
- Implementation using java springboot, Kafka, and MySQL.

ORGANIZATION

Himpunan Mahasiswa Komputer - Bandung, Indonesia

- Staff from departement Rohani dan Islam (January 2022 – January 2023).
- Head of the media and broadcasting division from departement Rohani dan Islam (January 2023 – January 2024)

CERTIFICATES

Sertifikat Magang Generasi Bertalenta (MAGENTA)

Kementrian BUMN — (Issued Dec 2024)

Credential ID : 00042/MAGENTA/FHCI01/12/24

Junior Backend Springboot Developer

Arutala Lab — (Issued Jul 2025 · Expires Jul 2028)

Credential ID: TC2025.J.SB.C.07.005

Skills: Back-End Web Development, Spring Boot, RESTful APIs, MySQL, Java, Unit Testing

AI Engineer Laskar AI 2025

Lintasarta, Dicoding — (Issued Aug 2025)

Credential ID : LAI25/GRAD/XXV-8/A126YBM299

Skilss : AI/ML Engineer, Data Science, Python Programming

SKILLS

- **Core Skill :** Java, Javascript, Golang, Python, Git, REST, gRPC, PostgressSQL, MySQL, C/C++, Springboot, Flask, NodeJS, Docker, Software Testing, Automated Software Testing.
- **Languages :** Indonesian (Proficient), English (Intermediate)