

# YUDHA RIZQIA GRAFER

## FULLSTACK DEVELOPER

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### SUMMARY

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I'm a Fresh Graduate in Informatics Engineering from Universitas Dian Nuswantoro with experience in fullstack development, specializing in building scalable and user-focused web applications across both frontend and backend technologies. Passionate about modern software development, I have a strong interest in intelligent systems, AI-driven solutions, and emerging web technologies to create innovative and impactful digital experiences. With strong problem-solving abilities, adaptability, attention to detail, and a continuous learning mindset, I am committed to developing reliable, efficient, and scalable technology solutions that deliver real-world value and support business growth through modern and intelligent software systems.

### PROFESSIONAL EXPERIENCE

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#### Diskominfo, Full Stack Developer & ML Ops

Aug 2025 - Oct 2025

- Increased traffic monitoring efficiency through automated real-time vehicle detection and license plate recognition.
- Improved system reliability and scalability by implementing distributed FastAPI detection nodes with load balancing architecture.
- Reduced traffic data processing time through backend optimization and centralized API orchestration using Laravel.
- Delivered real-time traffic analytics and automated license plate data to support smarter and more efficient city monitoring systems.

#### Bengkel Koding, Research Assistant, Ai Engineer

Aug 2024 - Jul 2025

##### & Full Stack Developer

- Developed and maintained the FastAPI backend for the Virtual Smart Assistant (VSA), integrating facial recognition, emotion detection, avatar interaction, and a RAG-based chatbot to support intelligent campus assistance systems.
- Built and optimized machine learning models for real-time face detection and recognition on edge computing devices, improving AI system responsiveness and deployment efficiency.
- Contributed to research initiatives and programming workshops through AI experimentation, technical documentation, and student mentoring, resulting in contributions to 4 international conference papers, 1 SINTA-3 journal article (under review), and improved student learning outcomes.

#### Freelance Programmer

Sep 2022 - Present

##### AI Engineer & Full Stack Developer

- Developed custom fullstack web applications and automation systems using Laravel, CodeIgniter, Next.js, Express.js, and MySQL for various client and business needs.
- Built automation solutions involving Gmail account generation, OTP verification, multi-threading, ADB integration, and real-time monitoring through Discord webhooks to improve operational efficiency.
- Developed AI-powered and IoT-based applications, including vehicle license plate detection systems using YOLO and OCR, as well as smart assistive systems with real-time monitoring and emergency support features.

## PROJECTS

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- **SoboGate AI (Diskominfo Wonosobo)** | *Tech Stack : Laravel, FastAPI, NextJS, MySQL, YOLOv8, OpenCV, EasyOCR, Cloudflare Tunnel*  
Developed a CCTV-based intelligent traffic monitoring system for vehicle detection, traffic analysis, and license plate recognition using YOLOv8 and OCR. Designed a scalable microservices architecture with FastAPI and Laravel to support centralized processing and multi-node CCTV integration.
- **Virtual Smart Assistant (VSA)** | *Tech Stack : React, FastAPI, ChromaDB, YOLO, DeepFace, Gemini + RAG, Live2D Cubism*  
Developed an interactive AI-powered campus assistant featuring facial recognition, emotion detection, avatar-based interaction, and a RAG-powered chatbot to deliver intelligent campus information and real-time conversational support for students.
- **Blind Stick** | *Tech Stack : Python, IoT, Laravel, PHP, MySQL, JavaScript*  
Built an IoT-based smart assistance system for visually impaired users with obstacle detection, real-time monitoring, and emergency support features integrated through a Laravel-based and guardian monitoring platform.
- **Sipernik (PTUN Gorontalo)** | *Tech Stack : PHP, CodeIgniter, MySQL, Bootstrap*  
Developed and enhanced an electronic correspondence management system for government administration, supporting document tracking, archive management, letter categorization, and workflow efficiency for administrative operations.

## EDUCATION

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### Bachelor of Computer Science

Sep 2022 - Feb 2026

Dian Nuswantoro University | GPA: 3.91/4.00

- Courses Related: Artificial Intelligence, Machine Learning, Deep Learning, Computer Vision, Natural Language Processing, Data Mining, Database Systems, OOP, Web Programming, Statistics

## CERTIFICATIONS & COURSE

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- Certification Scheme of Web Developer (by BNSP)
- Certification Scheme of Associate Data Scientist (by BNSP)
- Certification Scheme of Data Scientist (by BNSP)
- CCNA: Introduction to Networks (by Cisco)
- CCNA: Switching, Routing, and Wireless Essentials (by Cisco)
- CCNA: Enterprise Networking, Security, and Automation (by Cisco)
- Getting Started with Deep Learning (by NVIDIA)

## SKILLS

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### Web Development

**Languages** : HTML, CSS, JavaScript, PHP, Python, SQL, NoSQL (MongoDB), MySQL, PostgreSQL

**Frameworks** : React, NextJS, Tailwind CSS, Bootstrap, Laravel, CodeIgniter, FastAPI, Flask, Django, ExpressJS, NodeJS

**Tools** : GitHub, Figma, Vite, Notion, VS Code, Postman, Apache, Xampp

### AI & Machine Learning

**Languages** : Python, TensorFlow, PyTorch, Scikit-learn, OpenCV, YOLO (Ultralytics), FastAPI, Hugging Face Transformers, LangChain, Gemini API, OpenAI API

**Tools** : Google Colab, Jupyter Notebook, Roboflow, OCR, GitHub, VS Code, Postman