

DANANG WAHYU PRASEKTIYO

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I'm a Computer Engineering student at Diponegoro University with a strong passion for emerging technologies, especially Artificial Intelligence, Machine Learning, and Big Data. I enjoy building innovative solutions and designing engaging user experiences through technology. Constantly learning and improving my technical and soft skills, I aim to contribute meaningfully to impactful tech projects. Open to collaboration, internships, or opportunities that align with my interests and help me grow professionally.

WORK EXPERIENCE

Laboratory Assistant — Diponegoro University

Aug 2024 – Dec 2025

- Entrusted as a Teaching Assistant for 5 practicum periods across 3 semesters, instructing a massive cohort of over 150 students per session.
- Demonstrated technical reliability by being re-appointed to lead Basic Electronics and Digital Systems labs twice, mentoring students in logic circuits and hardware troubleshooting.
- Facilitated Multimedia sessions focused on Video Editing software and creative workflows, guiding students in producing high-quality digital content.
- Managed administrative responsibilities for concurrent classes, including grading and providing personalized feedback, while maintaining high academic performance.

Frontend Developer Intern — Diskominfo Kota Semarang

Jul 2024 – Aug 2024

- Engineered responsive user interfaces using React.js and Tailwind CSS, ensuring high performance across devices.
- Integrated RESTful APIs to connect frontend modules with backend services, optimizing data retrieval and state management.
- Collaborated with backend engineers and UI/UX designers to translate Figma prototypes into scalable, reusable code components.

PROJECTS

SmarTik – AI Platform for Batik Semarangan | Link: www.smartik.id

- Generative AI Implementation: Spearheaded the development of the Generative Module using CycleGAN, enabling users to transform rough sketches into authentic Batik Semarangan patterns instantly.
- Backend & Pipelines: Engineered the core backend services using FastAPI, creating robust preprocessing pipelines (image resizing, normalization) to prepare user inputs for model inference.
- Cloud Deployment: Led the deployment of the entire backend infrastructure on Google Cloud Platform (Cloud Run), ensuring the classification and generative services are accessible publicly with serverless scalability.

Chat with PDF - RAG Powered PDF Assistant

- RAG Architecture: Engineered a Retrieval-Augmented Generation (RAG) system using LangChain and Google Gemini Flash, enabling users to interactively query and summarize complex PDF documents with high accuracy.
- Vector Search & Optimization: Implemented FAISS for high-speed similarity search and utilized HuggingFace (all-MiniLM-L6-v2) for local embeddings, optimizing latency and eliminating embedding API costs.
- Context Aware UI: Developed a conversational interface using Streamlit with session state management to maintain chat history context across user interactions, ensuring a seamless Q&A experience.

TRAINING & CERTIFICATIONS

Associate Data Scientist Badan Nasional Sertifikasi Profesi (BNSP)	Des 2025 – Dec 2028
<ul style="list-style-type: none">Officially certified by the Indonesian National Professional Certification Authority (BNSP) as an Associate Data Scientist, validating professional competency in data analytics and modeling.Demonstrated proficiency in the end-to-end data science lifecycle, including data ingestion, preprocessing, exploratory data analysis (EDA), and model evaluation.Proven ability to apply statistical methods and machine learning algorithms to solve industry-standard problems according to national competency standards.	

Data Science Bootcamp - Digital Skola
<ul style="list-style-type: none">Completed an immersive 3-month curriculum focusing on Python programming, SQL database management, Data Analysis, and Machine Learning algorithms.Performed comprehensive Exploratory Data Analysis (EDA) and advanced data visualization using Pandas, Matplotlib, and Seaborn to derive actionable business insights from complex datasets.Developed and optimized predictive models using Scikit-Learn, applying various techniques such as Linear Regression, Classification, and K-Means Clustering to real-world case studies.

EDUCATION

Diponegoro University Computer Engineering	Aug 2022 - Present
<ul style="list-style-type: none">Honors & Awards:<ol style="list-style-type: none">Passed Internal Selection for Gemastik 2025 (National ICT Competition).Passed Internal Selection for PKM 2022 (Student Creativity Program).Relevant Coursework: Artificial Intelligence, Machine Learning, Digital Systems, Multimedia, System Analysis & Design.	

ORGANIZATIONAL EXPERIENCE

Member, Multimedia Division — Computer Engineering Research Club	Oct 2024 – Dec 2025
<ul style="list-style-type: none">Conducting mentoring sessions and workshops on Figma features and optimal design workflows.Providing technical guidance and creative solutions in game development using Unity, helping the team overcome technical challenges.	
Vice Chairperson, Information and Communication Unit — HIMASKOM	Sep 2024 – May 2025
<ul style="list-style-type: none">Spearheading strategic planning and unit management, acting as a key decision-maker to ensure seamless communication between internal and external stakeholders.Previously achieved a 90% success rate in program execution during tenure as Junior Staff.	

TECHNICAL SKILLS

<ul style="list-style-type: none">Languages: Python, SQL, JavaScript, TypeScript.AI & Machine Learning: PyTorch, TensorFlow, Scikit-Learn, LangChain, FAISS (Vector DB), Google Gemini API, CycleGAN (Generative AI), LightGBM.Web Development: FastAPI (Backend), Streamlit, React.js, Next.js, Tailwind CSS, RESTful APIs.Cloud & DevOps: Google Cloud Platform (Cloud Run), Docker, Git/GitHub.Tools: Postman, Figma, Visual Studio Code.
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