Danang Hapis Fadillah

AI Engineer

LinkedIn | danangpostman37@gmail.com | github | kaggle

SUMMARY

AI Engineer with strong experience in machine learning, NLP, and generative AI, trained through Bangkit Academy (Google-led). Currently working at **SimplifyAI Consulting Indonesia**, delivering enterprise-grade AI solutions in generative AI, data, and cloud platforms. Skilled in building end-to-end systems from model development to deployment. Experienced in developing predictive maintenance systems using LightGBM, and scalable RAG systems with FastAPI, LangGraph, Qdrant, and Ollama (with nomic-embed-text & qwen). Proficient in both backend and frontend development using Next.js, Shadcn/UI, and Firebase. Passionate about turning AI into practical, production-ready tools. Previously completed an internship at **Bintang Toedjoe**, contributing to real-world AI applications in a production environment.

EDUCATION

Universitas Indraprasta PGRI - Jakarta Timur

Informatics Engineering - **GPA** 3.54 / 4.00
- Data Structures & Algorithms: Implemented efficient data organization and problem-solving techniques
- Data Mining: Analyzed large datasets to extract meaningful patterns and insights
- Database Management Systems (MySQL)
- Object-Oriented Programming using Java
- Software Engineering Principles
- Web Development

SKILL

- **Machine Learning & Deep Learning:**
  LightGBM, XGBoost, Scikit-learn, TensorFlow, PyTorch, Transformers, LSTM, CNN, RNN, BERT, IndoBERT
- **Large Language Model (Tools):**
  Langchain, LangGraph
- **Backend Development:**
  FastAPI, REST API, Docker, Google Cloud Run
- **Frontend Development:**
  Next.js, React, Shadcn/UI, TailwindCSS, Vercel
- **Vector Database & Tools:**
  Qdrant, Pinecone, Ollama
- **Programming Languages:**
  Python, TypeScript
- **Others:**
  Git, Linux CLI, MySQL, HuggingFace

EXPERIENCES & PROJECTS

1. **AI Engineer at SimplifyAI Consulting | ETL & Multimodal**   **Aug 2025 - Present**

   In this project, I developed an **Agentic AI pipeline (Agentic Xtractor)** to automate the extraction of structured data — including **Asset Registers, BOMs, and Catalogues** — from complex engineering PDFs such as manuals and P&IDs. The system leverages a **modular LangGraph-based architecture** with custom agents and integrates **Qdrant** for high-precision retrieval, achieving **up to 90% extraction accuracy** across diverse document types.

2. **Machine Learning Engineer at Capstone Project | InterSim**   **Nov 2024 - Des 2024**
   - Conducted data scraping using Automa to collect job descriptions and resumes for training datasets.
   - Cleaned and preprocessed data to ensure compatibility for embedding and model training.
   - Implemented BERT embeddings to compute similarity between job descriptions and candidate profiles.
   - Fine-tuned the LLaMA-3.2-8B model using Alpaca format, achieving a training loss of 0.22 after 60 epochs.
   - Developed RESTful APIs using FastAPI to support cloud-based backend services.
   - Deployed the fine-tuned model on HuggingFace and containerized it using Docker for deployment on Google Cloud Run.

3. **Machine Learning Cohort at Bangkit Academy led by Google, Tokopedia, Gojek, & Traveloka (Batch 2)**   **Sep 2024 - Jan 2024**

   My AI journey intensified at Bangkit Academy, where I built a strong foundation in machine learning. Starting with mathematical fundamentals crucial for ML – linear algebra, calculus, and statistics – I progressed through core machine learning algorithms and their real-world applications. The program deepened into neural networks and deep learning, culminating in exploring cutting-edge generative AI technologies. This comprehensive training, backed by tech industry leaders, transformed my theoretical knowledge into practical AI development skills. Honed soft skills such as time management, energy management, growth mindset, communication, and teamwork through dedicated workshops and practical application.

4. **GEMASTIK 2024 (Data Mining)**   **June 2024**

   Performed sentiment analysis on Google Play Store reviews for the Mobile Bea Cukai app using IndoBERT. Conducted n-gram analysis, identifying "applikasi tolol" as the most frequent phrase, providing valuable insights for app improvement.
   [My journal](#) | [code](#)

5. **RAG System "BEJO App" | AI Engineering**   **Mar 2025 - Jul 2025**

   Developed a modular Retrieval-Augmented Generation (RAG) system called BEJO. The system was built using FastAPI for the backend and Next.js, Shadcn/UI, and Firebase for the frontend. Integrated LangGraph for dynamic agent routing and Qdrant as the vector store to support efficient semantic search. During development, the system used proprietary models like text-embedding-004 and Gemini 2.0 Flash, while the production environment adopted nomic-embed-text and Qwen, deployed via Ollama, to ensure open and efficient deployment. Exposed key endpoints such as **/upload?embed=true** for file embedding and **/chat/{thread_id}** for contextual question-answering based on retrieved documents.

6. Predictive Maintenance | ML Project   **Mar 2025 - Jul 2025**

Designed and implemented a predictive maintenance system using multivariate time series data to classify equipment conditions into **Normal**, **Warning**, and **Leak**. After benchmarking multiple models, **LightGBM** was selected for its superior **precision** and **recall**, making it well-suited for the imbalanced nature of the data compared to Random Forest, XGBoost, and LSTM. Applied **hyperparameter tuning** to optimize performance, and built a **Streamlit dashboard** for real-time monitoring and model inference

CERTIFICATES

- [Certificate of Completion Bangkit Program](#)
- [Machine Learning Specialization](#)
- [Mathematics for Machine Learning and Data Science](#)
- [Tensorflow Developer](#)
- [RISTEK Datathon UI 2023](#)