DAFFA FIRDAUS

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Data Scientist

SUMMARY

Experienced in designing **machine learning systems**, including **recommendation systems, value predictors** (regression/clustering), and **text classifications**. Advanced in **exploratory data analysis** (data cleaning, transformation, visualization), **machine learning/deep learning modeling, AI engineering** (fine-tuning, prompt engineering, RAG), and **database handling**. Ranked **top-20** in a **national mathematics competition** for college-level (ONMIPA-PT 2024), competing against **1200+** participants nationwide.

EDUCATION

Institut Pertanian Bogor (IPB University) - Bogor Regency, Indonesia **Aug 2021 – Jun 2025**
Bachelor of Mathematics, 3.66/4.00

SKILLS

ProgLang & Tools	Python, R, Julia, SQL, GitHub, Git, Power BI, Excel, FAISS, ChromaDB
Libraries & Frameworks	Pandas, NumPy, Matplotlib, Seaborn, Scikit-learn, TensorFlow, PyTorch, Hugging Face Transformers, n8n, LangChain, LangGraph, OpenAI API
Technical Skills	Exploratory Data Analysis, Data Cleaning, Data Visualization, Machine Learning, Deep Learning, LLM, NLP, RAG, Fine-tuning, Prompt Engineering, Teaching
Languages	English (Fluent), Indonesian (Native)

PROJECTS

- **Semantic Course Recommender System**: Built a course recommendation system for an online learning platform using content-based and collaborative-filtering approaches. The best model achieved 0.1534 RMSE value.
  Tools: Python, Scikit-surprise, Scikit-learn, Pandas, NumPy, TensorFlow.
- **System Logs Classification System**: Developed a log classification pipeline using hybrid approach (BERT + LLM) to optimize efficiency. Obtained 97% classification accuracy with optimized cost.
  Tools: Python, Pandas, Hugging Face Transformer, Scikit-learn, OpenAI API, FastAPI.
- **Solaria Personalized Menu Recommendation System**: Implemented a personalized menu recommendation system using SVD technique based on user previous ratings.
  Tools: Julia and its libraries (DataFrames, LinearAlgebra, BenchmarkTools).
- **Life Expectancy Predictor**: Built a multiple linear regression model derived from statistical analysis to identify key factors influencing life expectancy. Achieved an adj. $R^2 = 0.659$ for the best-performing model.
  Tools: R and its statistical libraries.

EXPERIENCES

AI Agent Trainer **Aug 2025 – Present**
SoftAge Information Technology Limited | Freelance
- Trained AI agent systems by performing diverse digital tasks based on text prompts to guide model learning.
- Performed 15–30 tasks per hour.

Mathematics Tutor **May 2024 – Oct 2024**
Gugus Mahasiswa Matematika IPB | Contract
- Tutored fellow mathematics students on math subjects: Real Analysis and Cryptographic Mathematics.

Staff of Broadcasting, Event, and Service Division **Dec 2022 – Dec 2023**
Serambi Ruhiyah Mahasiswa G IPB | Organization
- Analyzed and visualized survey data into several charts to illustrate program impact.
- Organized and executed 10+ faculty-level seminar events.

COMPETITION

Honorable Mention in Mathematics at ONMIPA-PT 2024
Ranked top-20 in a national mathematics competition (ONMIPA-PT 2024), competing against 1,200+ participants nationwide. Issued by Kemdikbudristek, Puspresnas, and BPTI.

CERTIFICATIONS

- **IBM Machine Learning with Python & Scikit-learn**, IBM.
- **Large Language Model Operations (LLMOps)**, Duke University.