GIBRAN ARIQ NATAKUSUMA

gibranariq15@gmail.com | LinkedIn | GitHub | **WEB PORTFOLIO**

AI/ML Engineer based in Jakarta, Indonesia, with a Bachelor's degree in Informatics with 1+ years of experience in Data and AI. Improved the Subchannel Prediction Model using mBERT (92% F1-Score) and executed a large scale backfill for 2M+ articles at kumparan. Improved complaint data exploration efficiency by up to 50% by generating over 32,000 Q&A pairs for internal chatbot training at Telkom Indonesia.

PROFESSIONAL EXPERIENCE

AI & Cloud Solutions Intern, Lintasarta – Jakarta **Jul 2026 - Present**

- Engineered and refined LLM prompts for OCR, NER, and ER extraction, validating and ingesting structured document relationships into FalkorDB.
- Built Human-in-the-Loop (HITL) graph editing capabilities (entity/relation rename & merge) and implemented a persistent chat history system with automated conversation summarization.

Data Scientist Intern, kumparan – Jakarta **Jul 2025 - Nov 2025**

- Improved the Subchannel Prediction Model by adopting mBERT, raising the F1-Score from 90% (IndoBERT) to 92%.
- Executed a large-scale backfill workflow, predicting and updating 2M+ article channel & subchannel labels from 2017–2025.
- Collaborated in a 6-person cross-functional team to build an automated Topic Suggestion feature. Benchmarked self-developed YAKE model (72%) against a TF-IDF baseline (75%) for model selection. Implemented an asynchronous inference pipeline via FastAPI and BigQuery integration, earning the Best Final Project award.

Data Scientist Intern, PT Telkom Indonesia Tbk – Jakarta **Oct 2024 - Mar 2025**

- Designed and maintained interactive dashboards using Looker Studio to track key metrics.
- Processed MyIndiHome iOS App Review and Twitter data using n-gram analysis and LLM APIs for automated sentiment scoring, topic prediction, and summaries.
- Developed a Prompt-Based AI system using LLMs (ChatGPT, Gemini, LLaMA) to improve complaint data exploration efficiency by up to 50%. Generated over 32,000 Q&A pairs for internal chatbot training.

Data Analyst Intern, Pusat Pengelolaan Komplek Gelora Bung Karno – Jakarta **Jul 2024 - Aug 2024**

- Analyzed diverse datasets including 2023 e-booking transactions and 65,000+ crawled sentiment tweets and deployed Streamlit dashboards to deliver actionable insights for venue rental optimization and public complaint management. (3-member team project)

PROGRAMS

Data Science and AI Machine Learning Bootcamp Mentee, Dibimbing **Jan 2026 - July 2026**

- Developed a YOLO26n based driver drowsiness detection system using a custom dataset of 2,500+ images, achieving 91.38% Recall and 95.57% mAP50.
- Developed RAG applications using OpenAI models, LangChain, and PostgreSQL (pgvector) for document retrieval and context-aware response generation.

Machine Learning Cohort, Bangkit Academy led by Google, Tokopedia, Gojek & Traveloka **Feb 2024 - Jul 2024**

- Developed a ML model to detect decent/unworthy clothes using TensorFlow MobileNetV2, achieving 94% accuracy.
- Served as project manager in a 7-person team to build the "WearShare" app, created detailed reports and designed the business workflow.

EDUCATION

Bachelor of Informatics, Telkom University – Bandung **Sep 2021 - Feb 2025**

- GPA: 3.79/4.00
- Thesis: Detecting Fake News in Indonesian with a Natural Language Inference Approach using Deep Learning (Scopus).
- Conducted a prompt engineering workshop using ChatGPT for 33 students at SMA Telkom Bandung.

PROJECTS

Real Time Driver Drowsiness Detection Web Application using YOLO	**2026**
AI Customer Support Chatbot (RAG-based)	**2026**
Mini Travel Chatbot RAG Method Comparison (MiniMax-M2.7 model)	**2026**
End to End Housing Price Prediction System (MLOps Pipeline)	**2026**
Toll Road Vehicle Detection (Car, Bus, Truck) using YOLOv11	**2026**
Time Series Forecasting (Sales) – Dibimbing	**2026**
Clustering (Airline) – Dibimbing	**2026**
Churn Analysis (Bank & Telecom) – Dibimbing	**2026**
Subchannel Article Classification using mBERT – kumparan	**2025**
Article Topic Extractor using YAKE – kumparan	**2025**
Q&A Data Generation for Chatbot Training using LLMs – Telkom	**2025**
Detecting Indonesian Fake News using NLI & IndoBERT – Thesis	**2024**
Adult Income Prediction using XGBoost – CCI Summit Data Competition	**2024**
Optical Character Recognition using CNN Model – Multimedia Laboratory	**2024**
Broken Clothes Detection using MobileNetV2 – Bangkit Academy	**2024**

ORGANIZATIONAL EXPERIENCE

Programming Division Member, Multimedia Laboratory Telkom **Jan 2024 - Feb 2025**

Multimedia Laboratory focuses on exploration and conducting research on matters related to Computer Vision.

- Became a project leader in a team of 3 people and developed deep learning model for optical character recognition using CNN model with an accuracy of 96%.

LANGUAGE & SKILLS

- **Language:**
  - English: TOEFL ITP – Score: 537 (2026)
- **Technical Skills:**
  - AI & Machine Learning: Regression, Classification, NLP, LLM, RAG, Computer Vision
  - Data & Analytics: Data Analysis, Data Cleaning, Visualization, Dashboard Development
  - Programming & Databases: Python, SQL, PostgreSQL, BigQuery
  - Frameworks & Tools: Scikit-learn, Matplotlib, TensorFlow, FastAPI, Git, Roboflow, LangChain
  - Cloud & Deployment: Docker, Google Cloud Platform
  - Research & Project Management: Literature Review, Experiment Design, Jira, Technical Requirements Document (TRD)
- **Soft Skills:** Critical Thinking, Creative, Teamwork, Detail Oriented, Communication, Problem Solving