

KRISTY NATASHA YOHANES

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AI Engineer with **4+ years of experience** in developing, deploying, and optimizing machine learning models and scalable data solutions in **fintech, telecom, and research** environments. Proven track record in **fraud detection, retrieval-augmented generation (RAG), and end-to-end ML pipelines**, reducing fraud by up to 25% and streamlining operational efficiency by 18%. Adept at leveraging Google Cloud (Vertex AI, BigQuery), advanced ML architectures (e.g., RGCN, HGT, VAE), and data visualization to solve complex challenges.

KEY SKILLS

- **Programming & Frameworks:** Python, SQL, TensorFlow, PyTorch, Sklearn, LangChain
- **Machine Learning:** Anomaly detection (e.g. PCA, Isolation Forest, HDBSCAN), Graph Neural Networks, Retrieval-Augmented Generation (RAG), Variational Autoencoder (VAE), Gradient Boosting
- **Cloud Platforms:** Google Cloud (Vertex AI, BigQuery, Cloud Functions), Apache Kafka
- **NLP & Chatbot Tools:** LangChain, Large Language Models (LLMs), Vertex AI, Dialogflow
- **Data Tools:** Looker, Tableau, PowerBI, PostgreSQL, DBeaver
- **Domain Expertise:** Fraud detection, RAG for Chatbots, AML, Telecom operations
- **Soft Skills:** Leadership, Cross-functional collaboration, Agile methodologies

PROFESSIONAL EXPERIENCE

1. **Artificial Intelligence Engineer** – *Dans Multi Pro (telecommunication IT solutions)*

Dec 2024 – now

 - Developed a Fraud Detection System for DigiPOS Telkomsel by integrating rule-based systems, machine learning scoring (XGBoost, HDBSCAN clustering), and deep learning models (VAE), reducing fraud by 25%.
 - Built a Retrieval-Augmented Generation (RAG) pipeline using Vertex AI, LangChain, and LLMs, enhancing chatbot accuracy and context retention by 30% for GraPARI Telkomsel's customer service.
 - Automated chatbot monitoring pipelines with real-time dashboards, improving service efficiency by 18%.
 - Designed scalable infrastructure integrating S3, Rule Engine DB, and GCP workflows for fraud detection.
2. **Data Analyst (AI/ML, Anti-Fraud)** – *LinkAja (fintech e-wallet service)*

Dec 2023 – Dec 2024

 - Delivered 4/4 successful model cycles, implementing relevant techniques (RGCN, HGT, Network Analysis).
 - Contributed to a 11.2% reduction in fraud incidents, saving 95% of potential losses monthly.
 - Optimized SQL queries, reducing BigQuery execution times by an average of 180 seconds.

INTERNSHIPS AND RESEARCH

3. **Research Associate (AI/ML)** – *FITB Research Grant ITB*

Feb 2022 – Nov 2023
4. **Data Scientist Internship** – *Kalbe Nutritionals (pharmaceutical)*

Sep 2023 – Nov 2023
5. **Freelance AI Engineer (NLP Developer)** – *(outsource/hiring service)*

Jan 2023 – Aug 2023
6. **Full-Stack Developer Internship** – *BTPN Syariah (banking)*

Oct 2022 – Dec 2022
7. **Front-End Developer Internship** – *Core Initiative Studio (software house)*

Aug 2022 – Oct 2022
8. **Data Science Researcher** – *LAPAN (Indonesian National Aeronautics & Space Agency)*

Feb 2022 – Aug 2022
9. **GIS Data Analyst Researcher** – *Garda Caah (Indonesian Disaster Response Program)*

Apr 2022 – Jun 2022

PERSONAL PROJECTS

- **OpenAI Chatbot with RAG (Retrieval-Augmented Generation): Retrieve Information from CV**
Developed chatbot for document-enhanced responses, deployed with Docker and Kubernetes, accessible via web interface.
- **Fraud Detection System API: Syndicate Indication using Network Graph Analysis - Hackathon BI 2024**
Developed a Flask API to generate JSON files of node embeddings (graph positions), syndicate scores, and clusters.
- **YouTube NLP Video Recommendation Algorithm using User's Watch History**
Utilized YouTube API with OAuth 2.0 to extract keywords using NLTK within a Kedro data pipeline and provide recommendations.
- **Mobile Banking API Development: Secure User Registration and Profile Management**
Developed secure user registration API for a mobile banking application using Gin Gonic, implementing JWT authentication.

ACHIEVEMENTS & CERTIFICATIONS

- **1st Winner Best Paper in ACFE Call for Papers 2024:** Fraud Syndicates Within Digital Ecosystem: Graph Network and Transaction Analysis Approach (Published in Asia Pacific Fraud Journal Vol. 10 No. 1 January-June Year 2025)
- **Semifinalist AI Hackathon Bank Indonesia - FEKDI 2024:** Graph-based AI for Syndicate Identification
- **Bootcamp E-Learning:** Data Science, Website Development/Backend - Python Flask (MySkill)
- **AML and Data Governance Training:** Risk-Based Mentoring Program in Financial Technology Crimes (PPATK)
- **Full-Stack Development Training:** Certificate of Competencies (BTPN Syariah Fullstack Developer PBI Program)
- **Courseworks:** CS50 Computer Science for Artificial Intelligence (Harvard Online), **Google Cloud Professional Machine Learning Engineer Cert Prep** (Google), **Python for Data Science AI & Development** (IBM), **The Full Stack** (Meta), **Artificial Intelligence on Microsoft Azure** (Microsoft)

EDUCATION

- **BSc Earth Science & Technology (Data Science Focus)** – *Bandung Institute of Technology, Indonesia*

Aug 2019 – Aug 2023