ROYAN SABILA ROSYAD WAHYUDI

Summary

AI/ML Engineer and Informatics Engineering graduate (Cumlaude, UIN Syarif Hidayatullah Jakarta) with expertise in NLP, large language models, and applied machine learning. Experienced in developing and deploying intelligent solutions on Google Cloud and Azure, with a strong background in scalable ML systems from both academic projects and professional internships. Proficient in Python machine learning frameworks, statistical modeling, and cloud infrastructure for AI applications. Portfolio highlights include recommendation engines and predictive analytics, demonstrating end-to-end cloud development skills. Passionate about leveraging AI to create impactful, cloud-based solutions and ready to contribute technical expertise and innovation to drive business value.

Education

Universitas Islam Negeri Syarif Hidayatullah Jakarta - Indonesia

Sep 2021 – Aug 2025

Informatics Engineering, 3.83/4.00 (Cumlaude)

• Relevant Coursework: Data Structures and Algorithms, Artificial Intelligence, Database Managements, Web Development and Design, Data Science, Project Management

Work Experience

AI Automation Engineer – Government of Sukabumi

Apr 2025 - Sep 2025

Freelance

- Designed and implemented sentiment analysis workflow using n8n to process high-volume citizen comments across social media platforms.
- Architected end-to-end automation pipeline using n8n, connecting social media APIs, sentiment analysis models, and response generation systems.
- Reducing manual review time by 75% and enabling consistent response quality across government communications.

AI Engineer – Laskar AI

Feb 2025 – Aug 2025

Apprenticeship

- Leveraged MLflow within Azure ML to track experiments, manage model versions, and compare performance metrics across multiple iterations, supporting reproducibility and collaboration.
- Gained hands-on experience in machine learning and deep learning techniques, applying supervised and unsupervised learning algorithms to real-world datasets, and fine-tuning models for optimal performance before deployment.

DevOps Engineer – Ministry of Religion of the Republic of Indonesia

Nov 2024 – Mar 2025

Internship

- Supported the development and deployment of the Pusdiklat Room Management System for the Ministry of Religion, serving 100+ internal users.
- Built and optimized CI/CD pipelines on Google Cloud Platform, reducing deployment time by 60% and minimizing manual errors.
- Contributed to backend development using Laravel Filament, ensuring 99% uptime and seamless integration with ministry workflows.

Cloud Engineer - Bangkit Academy

Sep 2024 - Jan 2025

Internship

- Collaborated in a capstone team to integrate machine learning models with Flask and FastAPI frameworks, deploying them to production-grade environments with minimal latency and high uptime.
- Utilized services such as Compute Engine, Cloud Run, and Cloud Endpoints to deploy backend components and manage API traffic efficiently, while adhering to cloud security best practices.

Projects

Deep Learning for Chicken Disease Diagnosis with RAG Chatbot

- Built an end-to-end deep learning pipeline for classifying chicken diseases from fecal images, including data preprocessing, augmentation, and model training.
- Achieving 95% diagnostic accuracy across 4 common chicken using an optimized and reliable detection system.
- Implemented a RAG-based chatbot using LangChain, allowing users to receive precise, data-driven answers from a vector store of pinecone database.

Predictive Analytics for Water Potability

- Implemented end-to-end ML pipeline including EDA, data preprocessing, model comparison, and hyperparameter tuning using GridSearchCV
- Compared multiple ML algorithms (Random Forest, KNN, XGBoost) achieving ~60% accuracy, then improved to 97% using deep learning approach
- Delivered production-ready model with minimal error rates (2.7% false positive, 3.7% false negative) critical for water safety applications, representing 37% improvement over traditional ML approaches

End to End Student Dropout Risk Prediction

- Automated data preprocessing and feature engineering for robust student status classification.
- Built a machine learning pipeline (Gradient Boosting Classifier) achieving 90% accuracy and 84% recall for dropout prediction.
- Deployed the model via a Streamlit web app, allowing direct input and instant prediction for university stakeholders, and built an interactive Metabase dashboard for stakeholder insights, enabling data-driven decision making.

License & Certifications

Associate AI Engineer for Developers, DataCamp

Issued September – Expires September 2027

Credential Link

Developing Machine Learning System in Production, Dicoding Indonesia

Issued June 2025 – Expires June 2028

Credential Link

Applied Data Science, Dicoding Indonesia

Issued June 2025 – Expires June 2028

Credential Link

Applied Machine Learning, Dicoding Indonesia

Issued May 2025 – Expires May 2028

Credential Link

Skills

Programming: Python, SQL, Javascript

AI/ML: Large Language Models (RAG, fine-tuning, evaluation, function calling), NLP, Computer Vision, Deep Learning, Classical ML.

Technologies: PyTorch, TensorFlow, Hugging Face, Scikit-Learn, Keras, OpenCV, LangChain.

Data Visualization & BI Tools: Tableau, Looker Studio, Metabase.

MLOps: Model deployment with Docker & Kubernetes, CI/CD, monitoring & experiment tracking (MLflow, Prometheus, Grafana).

Cloud Platforms: GCP, AWS, Azure, FastAPI, Git.

Project Management Tools: (Proficient): Notion, Trello, Jira, Agile Methodology.

Softskill: Communication, Critical Thinking, Teamwork, Collaborative, Adaptability, Problem Solving.