# MICHAEL WIRYASEPUTRA
## Machine Learning Engineer | Artificial Intelligence Engineer

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## PROFESSIONAL EXPERIENCE

**ZICY.COM**                                          **(NOVEMBER 2025 – JANUARY 2026)**
**Freelance Artificial Intelligence Engineer**
Full-Stack AI Developer specializing in end-to-end AI application development — building modern ReactJS frontends, robust FastAPI + Celery backends, and seamless LLM integrations using cutting-edge foundation models. Experienced in designing scalable systems, orchestrating asynchronous task pipelines, and deploying production-ready AI workflows, with MongoDB used to store user-generated content, LLM token usage, and application metadata. I also manage and maintain AWS EC2 servers, handling deployment, environment configuration, SSH access, networking, and uptime monitoring for cloud-based AI applications.

**RUBYTHALIB.AI (PROJECT FOR PT GOLDEN ENERGY MINES TBK – SINARMAS GROUP)**          **(JANUARY 2025 – APRIL 2025)**
**Freelance Artificial Intelligence Engineer**
- Train and test a digit classification model for truck fleet numbers.
- Define and correct designated areas for APD detection and fix area-related errors.
- Develop an OCR system for detecting date and time from CCTV footage.
- Develop real-time face recognition using face embedding

**PT. ARIF INOVASI TEKNOLOGI**          **(JANUARY 2024 – PRESENT)**
**Machine Learning Engineer and Artificial Intelligence Engineer**
- **Chat with Your File:** Analyze files (PDF, PPT, Excel, Word, MP3, CSV) using LangChain, embedded in FAISS for fast retrieval.
- **Tabular Data Analysis:** Upload CSV/Excel, ask questions, set target variables, and get visual insights (bar chart, histoplot) with Google Gemini.
- **Sentiment Analysis:** Automate sentiment analysis with BERT Indo, providing topic modeling, n-gram analysis, and word cloud visualizations via Google Gemini.
- **Predictive Analysis:** Automate predictions using Random Forest to identify churn-prone clients with actionable insights from Google Gemini.
- **Clustering Analysis:** Segment customers using K-Means, providing cluster assignments and insights via Google Gemini.
- **Statistical Analysis :** Making Python Endpoint for some statistical analysis that will be used for users
- **Backend Development:** Build FastAPI-based backend, validate data with Pydantic, test with Postman, and containerize with Docker.
- **Cloud :** Deploying Python backends on Google Cloud Run and using Vertex AI (Paid Google Gemini Models) for advanced LLM workloads.

**PLATTER.AI**          **(SEPTEMBER 2023 – NOVEMBER 2023)**
**Data Scientist**
- Create a LLM model using Langchain and OpenAI to make a summary from pdf documents and make Langchain and OpenAI explain the pdf documents for the vector database, using ChromaDB.

**PETA KEBIJAKAN**         **(MARCH 2023 – AUGUST 2023)**
**Data Scientist**
- Develop scalable ML models using appropriate algorithms.
- Perform text analysis: document similarity, word cloud, taxonomy, and n-gram analysis.
- Stay updated on ML advancements for innovative solutions.
- Solve technical challenges in ML model development.
- Collect, clean, and analyze data for insights.
- Predict law passage with 89% accuracy using Random Forest.
- Conduct sentiment analysis with Transformers.

## TUTOR AND TRAINER EXPERIENCE

**INTELLIGO.ID**         **(MAY 2025 – PRESENT)**
*AI/ML Mini Bootcamp, Bootcamp, Private Course Tutor*

Teaching and mentoring students across private, semi-private, and full-class bootcamps in AI/ML topics

**FULLSTACK BANGALORE**         **(JULY 2025 – OCTOBER 2025)**
*AI/ML Engineer and Data Engineer Bootcamp Tutor*

Delivering full-class instruction in Machine Learning, NLP, Large Language Models, Retrieval-Augmented Generation (RAG), and advanced RAG frameworks such as Agentic RAG, Hybrid RAG, and Adaptive RAG. Also teaching LLMOps practices and hands-on LLM fine-tuning.

**DSAREA**         **(SEPTEMBER 2025 – PRESENT)**
*AI/ML Engineer Bootcamp Tutor*

Delivering full-class instruction in Machine Learning, NLP, Large Language Models, Retrieval-Augmented Generation (RAG), and advanced RAG frameworks such as Agentic RAG, Hybrid RAG, and Adaptive RAG. Also teaching LLMOps practices and hands-on LLM fine-tuning.

**DIBIMBING.ID**         **(DECEMBER 2025 – PRESENT)**
*Data Science AI/ML Engineer Bootcamp Tutor*

Delivering full-class instruction in Machine Learning, NLP, Large Language Models, Retrieval-Augmented Generation (RAG), and advanced RAG frameworks such as Agentic RAG, Hybrid RAG, and Adaptive RAG. Also teaching LLMOps practices and hands-on LLM fine-tuning.

**BANK JATENG TRAINER**         **(SEPTEMBER 2025)**
*Agentic LLM Trainer*

Delivered advanced training on constructing agentic AI systems using LangChain, LangGraph, and Gemini/OpenAI models—covering multi-agent coordination, RAG pipelines, tool execution, memory modules, and LLMOps best practices—along with foundational machine learning concepts, practical implementation of customer churn and fraud prediction models, and KYC automation workflows using OpenAI to extract document information in structured JSON format.

# EDUCATION

**SOEGIJAPRANATA CATHOLIC UNIVERSITY**          **Semarang, Central Java**
*Bachelor of Computer Science*          **2019 – 2023**
Activities and societies: HMTI, Bemu Mini Seminar, Rector Cup, Student Of The Year 2021. GPA : 3.67 / 4.00

**RAKAMIN ACADEMY**
*Data Science Bootcamp*          **2023**
In this bootcamp, I am learning how to clean datasets, build machine learning models, perform hyperparameter tuning, and deliver actionable business insights. Grade : Excellent Grade

**DIGITAL SKOLA**
*Data Engineering Bootcamp*          **2024**
During this program, I engaged in various activities, including performing ETL processes to transfer data from OLTP databases into a data warehouse and subsequently visualizing the data from the warehouse. Additionally, I worked on ETL tasks using PySpark to extract and process data from a PostgreSQL database. I also implemented scheduling workflows and data pipelines using Apache Airflow.

**DIGITAL SKOLA**
*Cloud Engineering Bootcamp*          **2025**
I have hands-on experience managing AWS EC2 compute environments, including setting up instances, configuring EBS volumes, and deploying FastAPI applications with secure SSH access using .pem keys through PowerShell. On the networking side, I work with VPC architecture, creating and configuring subnets (public and private), Internet Gateways, route tables, and Security Groups for controlled port access. I've also installed and managed PostgreSQL and MySQL databases on EC2, including evaluating storage usage and understanding how EBS size impacts database installations. Additionally, I'm comfortable with AWS access and security configuration, such as key pair generation, SSH authentication, and Security Group rule setup for ports like 22, 80, and 8000. I actively monitor AWS Free Tier usage, interpret billing alerts, and review data transfer summaries to ensure cost-efficient cloud operations.

**TECHNICAL SKILLS**

- Database: My-SQL , PostgreSQL, Google Big Query
- Python Library : Seaborn, Matplotlib, Numpy, Pandas, Scikit-learn, Tensorflow, Pytorch, Scipy, NLTK
  Programming language: Python, SQL
- BI Tools : Microsoft Power BI, Tableau
- NLP : Wordcloud, N-gram, Sentiment Analysis, Transformers, Topic modelling
- LLM Framework : Langchain, Llamaindex, Langgraph, Langsmith
- Advanced RAG : Agentic RAG, Adaptive RAG, Hybrid RAG, Self Corrective RAG
- LLM Finetuning : QLoRA, LoRA, PEFT (Unsloth)
- Large Language Model : Open AI, Google Gemini, Perplexity
- Vector Database for LLM : FAISSDB, ChromaDB
- Python Web Application Framework : Flask, FastAPI
- Big Data Tools : PySpark
- Cloud : Google Cloud Platform (Cloud Run, Cloud SQL), Snowflake, AWS (DynamoDB, EC2, VPC, CloudWatch, Lambda)
- Containerization : Docker

**ADDITIONAL INFORMATION**

- My Linkedin : https://www.linkedin.com/in/michael-wiryaseputra/
- End to End Data Science Portfolio : https://github.com/MagicDash91/End-to-End-Data-Science-Projects
- Competitions: GenAI Hackathon | APAC Edition
  Shortlisted GenAI Hackathon into the evaluation round. The project that i made is Fraud Analysis and Detection with Google Generative AI (Google Gemini) . This web application will allow the user to analyze their fraud dataset and then the web application will show some Visualization and chart based on the dataset. After that Google Gemini will give some responses about Conclusion and Actionable Insight based on the data
- Competitions : Analytics Vidhya Shortlisted Data Science Blogathon - 24 (Rank 9/1005).
  Shortlisted Analytics Vidhya Article named "Bank Customer Churn Prediction Using Machine Learning"Link : https://www.analyticsvidhya.com/blog/2022/09/bank-customer-churn-prediction-using-machine-learning/
- Competitions : Student of The Year 2021 (Top 19 Finalist)
- All of my Data Science Portfolio : https://github.com/MagicDash91/All-of-Data-Science-Project