# Muhammad Rafi Syafrinaldi

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## **EXECUTIVE SUMMARY**

Master's in Computer Science (Fast Track) candidate at Universitas Gadjah Mada (expected November 2025) with **3+ years of experience** in machine learning engineering, full-stack development, and data engineering. Proven ability to design and deploy **scalable ML models** (financial forecasting, anomaly detection, investment analytics) and build **cloud-native applications** leveraging AWS, Docker, and CI/CD pipelines. Proficient in Python, Scikit-learn, XGBoost, Hugging Face Transformers, and ETL tools (Talend). Fully available for full-time roles in AI/ML and data-driven solutions.

## **SKILL**

- Programming Languages: Python, R, C++, JavaScript, HTML, CSS, Git, Docker
- Machine Learning & NLP: TensorFlow, PyTorch, Scikit-learn, XGBoost, Random Forest, Neural Networks, RAG (Retrieval-Augmented Generation), FAISS, BM25
- Big Data & Cloud Technologies: Apache Spark, Kafka, Airflow, DBT, AWS, Google Cloud Platform (GCP), BigQuery, Hive, HDFS, SQL
- Data Science & Technologies: ETL Pipelines, Data Modeling, A/B Testing, Statistics, Time Series, Experimental Design, Hypothesis Testing, Data Visualization (Matplotlib, Seaborn, Tableau, Power BI)

#### EXPERIENCE

Machine Learning Engineer Intern

Glendale, California

Caprae Capital Partners

March 2025 - June 2025

- Developed and deployed machine learning models using Scikit-learn, XGBoost, and Prophet for financial forecasting, anomaly detection, and investment analytics on over 3,000+ financial records; integrated results with Hugging Face Transformers and generated over 100 business reports in PDF format using WeasyPrint, served through Flask and FastAPI endpoints.
- Led a team of engineers and collaborated with 3+ cross-functional teams to build scalable data pipelines, engineer 20+ production-grade features, and deploy models with 90% accuracy in real-time environments using Python and AWS services.
- Directed the development of 10+ backend APIs for a lead generation application, designing scraping workflows capable of handling 1,000+ companies/day, integrated into an AWS-hosted infrastructure ensuring 99.9% uptime.

Full-stack Developer Intern

Glendale, California

SaaSquatch Leads

March 2025 - June 2025

- Led a team to build a robust scraping API system handling 1,000+ daily requests, with rotating proxies, error recovery logic, and data normalization; designed and implemented 10+ RESTful APIs for data processing used across a platform serving 5,000+ leads.
- Provisioned and configured AWS infrastructure including Lightsail, EC2, RDS Aurora, Amplify, and Route 53, deploying services with Docker; implemented CI/CD pipelines using GitHub Actions and managed 10+ IAM roles to enforce least-privilege access control, supporting a 99.9% SLA cloud-native environment.

Project-Based Internship - Data Engineering

Remote

ID/X Partners

February 2025 - March 2025

- Developed scalable ETL pipelines and data models using Talend, processing over 20,000 transactional records daily to enhance real-time analytics and reporting capabilities.
- Engineered data workflows that improved data accessibility and reduced manual processing time by 30%, utilizing tools such as Talend, SQL, DBMS, and Python.

Sentiment Analysis Pipeline Developer

Pekanbaru, Indonesia

Universitas Islam Riau

February 2023 - July 2023

- Designed and deployed a **sentiment analysis pipeline** using **Python** and **SQL**, processing 500+ emails daily and improving preprocessing efficiency by 20%.
- Built automated ETL pipelines centralizing data in SQL, reducing manual reporting time by 30% and enabling real-time insights.

## **EDUCATION**

Master of Computer Science (Fast Track); CGPA: 4.00/4.00 Universitas Gadjah Mada

Yogyakarta, Indonesia

August 2024 - November 2025

• Fully funded by the **Department of Computer Science** scholarship.

• Focused on data-driven systems, including Data Warehouse and Intelligent Business.

Bachelor of Computer Science (Cum Laude); GPA: 3.71/4.00

Yogyakarta, Indonesia

Universitas Gadjah Mada

July 2021 - November 2024

• Completed coursework in Deep Learning, Machine Learning, Artificial Intelligence, Databases, Computer Vision, Data Mining, and Data Visualization.

Winter Abroad Program; GPA: 3.77/4.00

Seoul, South Korea

Yonsei University

December 2023 - January 2024

• Studied Big Data Analytics covering tools such as Hive, HDFS, Tableau, Power BI, and Microsoft Excel.

Data Science Bootcamp

Remote, Indonesia

Dibimbing.id

 $July\ 2022-December\ 2022$ 

• Trained in Machine Learning, EDA, Data Cleaning, Data Manipulation (Pandas), and Data Visualization (Seaborn, Matplotlib, Google Data Studio).

#### **PROJECTS**

#### Intelligent RAG Chatbot with Falcon-7B

Personal Project

2024

• Developed a hybrid RAG chatbot combining BM25, FAISS, and Falcon-7B for context-aware customer support.

#### Udemy Course EDA and Prediction

Personal Project

2022

• Conducted **EDA** on 3,000+ courses, revealing that **85% were paid**, with Web Development as the most popular subject.

#### **Anemia Classification Study**

Personal Project

2023

 Developed SVM and Random Forest models for anemia detection, achieving 85% accuracy with optimized hyperparameters.

#### Modern Data Warehouse Pipeline

Personal Project

2024

• Built an **ETL** pipeline integrating sales data and exchange rates via **KNIME**, improving financial forecasting and reporting.

## ACHIEVEMENT

#### Master DIKE Scholarship

Aug 2024

Awarded by Department of Computer Science and Electronics FMIPA UGM

## ORGANIZATIONAL EXPERIENCE

## Student Executive Board KM FMIPA UGM

Universitas Gadjah Mada

Yogyakarta, Indonesia **July 2021 – November 2023** 

• Head of Design Department

Managed a team in creating engaging feeds for every social media platform of BEMKM FMIPA UGM.

• Head of Creative, Grand Launching Event

Directed a team to design and produce necessary attributes and materials for stakeholders.

#### LANGUAGE

English: Professional Working Proficiency (IELTS 6.5, DET 135)

Certification

Indonesian: Native

Malay: Professional Working Proficiency