

IMAN RAHMAN

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PROFESSIONAL SUMMARY

Data Scientist specializing in developing predictive machine learning models and analyzing complex, unstructured data from physical sensor networks. Leverages a highly quantitative background in advanced statistical modeling (M.Sc., Physics) to architect scalable AI solutions within modern Cloud Environments (GCP). Proven track record of owning the complete analytics lifecycle from exploratory data analysis (EDA) and feature engineering on high-volume IoT telemetry to deploying models in production that drive operational safety, data governance, and measurable business impact.

CORE COMPETENCIES & TECHNICAL SKILLS

- **Machine Learning & AI:** Predictive Modeling, Feature Engineering, Exploratory Data Analysis (EDA), Hyperparameter Tuning, Anomaly Detection, Time-Series Analysis.
- **Programming & Frameworks:** Python (Pandas, NumPy, Scikit-Learn, XGBoost, PyTorch, TensorFlow), SQL, FastAPI, Google Apps Script.
- **Data Architecture & Cloud:** Google Cloud Platform (GCP, Cloud Run, Google AI Platform), Data Warehousing, ETL/ELT Pipelines, Edge Computing, MLOps, PostgreSQL.
- **Industrial Analytics:** High-Volume Sensor Telemetry, IoT Edge Devices, SCADA/DCS Data Contexts, Hardware Data Ingestion, Data Quality & Governance.

PROFESSIONAL EXPERIENCE

TOR-C UGM | Yogyakarta, Indonesia

Data Scientist & Machine Learning Engineer (Official Title: Research Assistant) | February 2023 – Present

- Designed, developed, trained, and validated predictive machine learning models (XGBoost, Scikit-Learn) on Lintasarta Cloudeka systems via an exclusive enterprise collaboration between UGM, Indosat, and NVIDIA, consulting directly with NVIDIA engineering teams to process high-volume, unstructured data from physical sensors.
- Performed Exploratory Data Analysis (EDA) and feature engineering on multi-sensor arrays, identifying critical trends, patterns, and anomalies to improve model accuracy for real-time physical monitoring.
- Conducted model selection and hyperparameter tuning for industrial telemetry data, establishing rigorous data quality, consistency, and governance protocols across edge-computing and PostgreSQL architectures.
- Developed analytical dashboards and visualizations using Python and FastAPI, presenting technical findings and actionable recommendations to both technical and non-technical stakeholders.

PT Vinix Seven Aurum | Remote

Data Automation Specialist (Official Title: Data Analyst & Mentor) | September 2025 – Present

- Engineered and deployed serverless data integration pipelines via GCP Cloud Run using Python, Google Apps Script, and Google AI Platform, centralizing data engineering outputs directly into Google Workspace (Drive/Sheets) and eliminating 100% of manual processing overhead.

- Directed data literacy initiatives by mentoring Data Science and Data Analyst cohorts, structuring curriculum boundaries and delivering advanced technical lectures on critical thinking and AI systems to bridge analytical knowledge gaps.

PT Nanosense Instrument Indonesia | Yogyakarta, Indonesia

Data Scientist (Official Title: Technical Expert) | January 2021 – January 2023

- Deployed, monitored, and maintained machine learning models in production environments, ensuring scalability and performance for high-throughput edge-computing devices processing thousands of daily samples.
- Processed and analyzed operational data from field sensors, developing low-latency data loggers to streamline extraction efficiency and improve hardware monitoring reliability.
- Directed 'Trainer of Trainer' (ToT) sessions for nationwide Electronic Nose (E-Nose) field deployments, translating complex machine learning operations into practical operational protocols for non-technical stakeholders.
- Authored and published peer-reviewed research on supervised machine learning and feature clustering for electronic nose sensors, demonstrating advanced capabilities in data mining techniques and predictive modeling.

Center for the Study of Accelerator Technology (BATAN) | Yogyakarta, Indonesia

Instrumentation Engineering Intern | November 2019 – January 2020

- Engineered an automated gas flow control system for the Cyclotron DECY 13 MeV utilizing National Instruments hardware and LabVIEW, gaining foundational experience in industrial hardware telemetry and physical control systems.
- Developed automated safety features and shutdown protocols driven by real-time flow meter monitoring, demonstrating early proficiency in industrial operational safety and sensor calibration.

EDUCATION

Universitas Gadjah Mada, Yogyakarta

- M.Sc. in Physics | Cumulative GPA: 3.82
- S.Si. in Physics | Cumulative GPA: 3.33

CERTIFICATIONS & PUBLICATIONS

- **Certifications:** Google Cloud Digital Leader | Data Scientist & Data Analyst Tracks (DataCamp)
- **Selected Publications:** Author of multiple peer-reviewed papers (e.g., NPJ Science of Food) focusing on machine learning applications for high-dimensional sensor data clustering and predictive classification.
- **Technical Speaker:** Python Conference Indonesia (PyCon ID) & Institut Teknologi Sumatera (ITERA) – Delivered expert lectures to national developers and academic cohorts on advanced Python signal processing, pipeline methodologies, and the implementation of Graphical User Interfaces (GUI) for low-cost hardware instrumentation systems.