

ALYA MUTIARA FIRDAUSYI

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Highly motivated Computational Science graduate with 3+ years of experience in cloud engineering seeking to leverage technical expertise in data management and big data technologies for a data engineering role. Well-versed in cloud platforms, databases (relational & NoSQL), and ETL tools, and possess a foundation in programming languages used in data engineering. Eager to contribute to building and maintaining data pipelines that deliver valuable insights for data-driven decision-making.

EDUCATION

INSTITUT TEKNOLOGI BANDUNG

Bandung, ID

Master of Science in Computational Science; GPA 3.74/4.00

2020 - 2023

- Published research in the Journal of Physics, "Pedestrian Evacuation Modeling Using Agent-Based Model and Social-Force Model." Utilized NetLogo, a leading agent-based modeling software, to investigate pedestrian behavior during evacuations ([Journal](#), [Code](#)).

INSTITUT TEKNOLOGI BANDUNG

Bandung, ID

Bachelor of Science in Physics; GPA 3.13/4.00

2014 - 2019

- Gained practical experience in laboratory management through a one-year role as Coordinator of Assistants for the Electromagnetic Laboratory. Responsibilities included preparing materials, scheduling experiments, and maintaining a functional lab environment.
- Authored a thesis investigating the comparative effectiveness of Static and Dynamic Multileaf Collimators in Intensity Modulated Radiation Therapy, utilizing Dose Volume Histogram Analysis. Leveraged tools like MATLAB, Python, spreadsheets, and SPSS to perform the analysis, employing paired-sample T-test statistics for data evaluation ([link](#)).

PROFESSIONAL EXPERIENCE

XTREMAX TEKNOLOGI INDONESIA ([XTREMAX.COM](https://xtremax.com))

Bandung, ID

Cloud Engineer

2019 - 2023

Xtremax is a certified digital transformation company providing innovative cloud solutions. Headquartered in Singapore, Xtremax has assisted numerous clients in large-scale server migration, cloud migration, application modernization, containerized services, and more.

- Maintained and optimized over 20 internal servers on AWS EC2, utilizing Load Balancers and Auto Scaling Groups. This work on the Content Website Platform project ensured seamless operations, proactive troubleshooting, and continuous enhancements.
- Remediated and addressed over 500 vulnerability findings within cloud servers and infrastructure using the Nexpose vulnerability scanner. This work fortified security and minimized potential risks, resulting in a 70% reduction in security incidents.
- Empowered developer teams by streamlining the installation, configuration, patching, and troubleshooting of services for five Content Management Systems (WordPress, SWIIT, Sitecore, Sitefinity, and SharePoint) across Linux and Windows OS environments.
- Documented over 100 complex issues addressed and resolutions provided as Change Request for Comment (RFC), Incident Report, Build Docs, or Wiki, while consistently updating project build and manual documentation.
- Facilitate guidance and support to onboard 2 new team members while collaborating with fellow engineers on deployment tasks.
- Collaborated with the development team to review and optimize AWS resource configurations for the CWP project, significantly reducing idle resource costs.

WORKSHOP

IYKRA ([IYKRA.COM](https://iykra.com))

Jakarta, ID

Data Engineer – Data Fellowship 12

2024 - Present

IYKRA is a Consulting, Training, and Implementation company focusing on technology development in AI, Big Data, and Analytics for enterprises and individuals. Among the programs offered by IYKRA is the Data Fellowship, designed to accelerate the journey of aspiring young Indonesian individuals pursuing careers as Data Engineers.

- Selected among 20 for IYKRA's competitive Data Engineering Fellowship. This rigorous 4-month program honed my skills through a scholarship-funded data engineering curriculum.
- Developed end-to-end data pipelines that ingested data from data lakes, performed transformations using big data tools (Airflow, Spark, dbt, Apache Kafka, BigQuery), and delivered results through data visualizations (Looker, Power BI, Tableau).
- Implemented Infrastructure-as-Code (IaC) for ETL workflows, ensuring repeatable and version-controlled deployments of batch processing and real-time data pipelines.
- Leveraged dbt to transform and ingest data into Google BigQuery as a data warehouse.
- Developed real-time data ingestion pipelines for data lakes using Apache Kafka. Leveraged Python scripts to create efficient Kafka producers and consumers, enabling continuous data flow.
- Leveraged PySpark's distributed processing capabilities to analyze vast public datasets.

ADDITIONAL INFORMATION

CERTIFICATION

- [Google Data Analytics \(2024\)](#)
Coursera
Earned hands-on skills in data prep, analysis, and visualization using industry tools (spreadsheets, SQL, Tableau).
- [AWS Solution Architect Associate \(2022 - 2025\)](#)
AWS
Validates expertise in designing secure, scalable, and cost-effective cloud solutions on AWS.
- [Microsoft Certified: Azure Fundamentals \(2023 - 2025\)](#)
Microsoft
Demonstrates foundational knowledge of cloud concepts and core Azure services for cloud beginners.

SKILLS

- **Software:** Spreadsheet (Pivot Table, Power Query), Databases (PostgreSQL, MySQL, NoSQL)
- **Programming Language:** Python
- **Tools:** dbt, Airflow, Kafka, NiFi, Informatica, Spark
- **Other:** Git, AWS, GCP, Linux OS, Windows OS, Bash, PowerShell, Docker

PROJECT

- MovieNow: Fictitious Online Movie Rental Analysis ([Article](#), [Code](#))
- Rakamin VIX BI Analyst Bank Muamalat - Sales Data Record ([Dashboard](#), [Slide](#))