

# ALYA MUTIARA FIRDAUSYI

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Experienced Data Engineer specializing in building scalable, automated data pipelines and warehouse solutions to support business and finance reporting. Proven track record in orchestrating workflows using Airflow, managing large-scale ETL processes in GCP and AWS, and developing robust streaming solutions with Kafka. Strong command of SQL, Python, and cloud-native data platforms with a passion for reliable, high-quality data delivery.

## PROFESSIONAL EXPERIENCE

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### LINKNET ([LINKNET.CO.ID](https://linknet.co.id))

#### Data Platform Engineer

Tangerang, ID

Aug 2024 - Present

PT Link Net Tbk is a leading Indonesian telecommunications provider delivering high-speed broadband, premium pay-TV, and innovative connectivity solutions through its extensive fiber network under the First Media and Link Net Fiber brands.

- Designed and managed 20+ Airflow DAGs with SLA monitoring, enabling reliable and automated data delivery for analytics and reporting.
- Migrated 100+ tables from GCP to AWS using AWS Glue, Lake Formation, and MWAA, optimizing metadata governance and performance.
- Automated complex ETL workflows on GCP, employing Python, Java, and shell scripts in conjunction with Dataproc and Dataflow to optimize data processing and ensure data integrity.
- Collaborate cross-functionally with data analysts and business teams to handle ad-hoc tasks, deliver actionable insights, and support data-driven decision-making.
- Manage end-to-end ETL pipelines, ingest data from on-premise sources (MySQL, Oracle Database, PostgreSQL, SAP DB, SQL Server), and maintain the data structure using a multi-layer data warehouse in BigQuery for efficient analytics and reporting.
- Implemented a real-time Change Data Capture (CDC) pipeline using Apache Kafka and Debezium to stream data changes from SQL Server to downstream application APIs, enabling event-driven integration and reducing data latency.

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

#### Cloud Engineer

Bandung, ID

Mar 2019 - Oct 2022

Xtremax is a certified digital transformation company providing innovative cloud solutions. Headquartered in Singapore, Xtremax has assisted numerous clients with large-scale server migrations, cloud migrations, application modernizations, 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

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

Jakarta, ID

### Data Engineer – Data Fellowship 12

Mar 2024 - Jul 2024

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 as one of 20 Data Fellowship Batch 12 students, awarded a fully funded scholarship to complete an intensive 4-month comprehensive data engineering curriculum.
- Led a team of five in building a customer segmentation model (capstone project: "Building Customer Segmentation for Effective Personalized Marketing") that earned the Best Capstone Project distinction.
- Developed end-to-end data pipelines that ingested data from data lakes (GCP), performed transformations using big data tools (Airflow, dbt, Apache Kafka, Apache NiFi, BigQuery), and delivered results through data visualizations (Looker, Tableau).
- Leveraged dbt to transform and ingest data into Google BigQuery as a data warehouse.

## EDUCATION

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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](#)).

## ADDITIONAL INFORMATION

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### CERTIFICATION

- [AWS Data Engineer Associate](#) (2025)
- [Google Data Analytics](#) (2024)
- [Microsoft Certified: Azure Fundamentals](#) (2023)
- [AWS Solution Architect Associate](#) (2022)

### SKILLS

- **Languages:** Python, Java, Shell, SQL
- **Data Tools:** Apache Airflow, Kafka, PySpark
- **Cloud Platform:** AWS (EC2, S3, AWS Glue, Lake Formation, Athena, Redshift, MWAA), GCP (Dataproc, Dataflow, BigQuery)
- **Database:** PostgreSQL, MySQL, OracleDB, SQL Server, Snowflake, NoSQL (Cassandra)
- **Other:** Git, Docker, Linux, Tableau