Rafi Pangestu

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WORK EXPERIENCE

Earth Observatory Singapore (EOS)

Singapore, Singapore

Software Engineering Intern

Jun 2024 - Present

- Reduced data processing time by 40% by overhauling legacy Bash and Python scripts orchestrated with Apache Airflow and AWS Resources to mine and preprocess satellite imagery data from NASA and JAXA space agencies.
- Shortened average social media publication time from 3 days to a few hours and improved security of job queues by developing a Django backend powered with Microsoft OAuth, GPT-4, and the LinkedIn API.

Learnr (NTU-backed EdTech Startup)

Singapore, Singapore

Software Engineering Lead

Feb 2024 - Present

- Spearheaded development of the new live-classroom notifications service using server-sent events and Redis streams, increased throughput into the front-end client by 200% over the previous implementation that used WebSockets.
- Scaled to over 1000 monthly active users through the development of the API gateway using Go, creating internal libraries for authentication and authorization, rate-limiting, caching, and task queues.

Abbott Manufacturing Singapore

Singapore, Singapore

Data Engineering Intern

Jan 2024 - Jun 2024

- Awarded the Abbott Excellence Award (Silver III) for educating modern data infrastructure concepts and modernizing data pipelines to Microsoft Azure and Databricks which improved runtime by up to 100x.
- Uncovered over 1 million USD in supply chain bottlenecks and operational bottlenecks through PowerBI dashboards.

GetGo Carsharing Singapore, Singapore

Data Science & Engineering Intern

May 2023 - Aug 2023

- Uncovered over 1 million SGD losses in vehicle damages and user churn trends through automated pipelines made with PySpark and Databricks. Pipelines supported training churn-prediction models and customer analytics.
- Implemented improvements to legacy ETL/ELT pipelines, achieving up to 120x speedups in data processing. Leveraged PySpark, SQL, Delta Lake, and Databricks to extract and transform data from S3 buckets and APIs.

ACHIEVEMENTS

- 3rd Place UBS Singapore/Hong Kong Global Coding Challenge 2024
- Bronze Medalist Indonesian Ministry of Education's National Chemistry Olympiad 2019

LEADERSHIP EXPERIENCE

Indonesian Cultural Night Musical (ICN 2024)

Singapore, Singapore

Technology & Corporate Liaison VP

Mar 2023 - Feb 2024

- Developed the backend built on FastAPI, Stripe, and Mailgun that handled 14,000 SGD worth of ticket sales.
- Raised over 30,000 SGD for the event through liaising with potential sponsors and planning fundraising activities.

SKILLS

Programming Languages: Python, Go, JavaScript, TypeScript, MATLAB

Data Analytics & Enginnering: AWS, Azure, Apache Airflow, Apcache Spark, Databricks, dbt, Tableau, PowerBI

Libraries & Frameworks: Next.js, React.js, Vue.js, React Native, Django, FastAPI, Express.js, Nest.js

Databases: SQL, MongoDB, Delta Lake, Google BigQuery, Amazon Redshift

EDUCATION

Nanyang Technological University Singapore (NTU)

Singapore, Singapore

Bachelor of Engineering - Chemical & Biomolecular Engineering

Graduation Date: Jun 2025