

Results-driven Software Engineer and Computer Science undergraduate with a strong focus on data engineering. Experienced in building scalable data pipelines, optimizing cloud infrastructure, and implementing DevOps practices to enhance data-driven decision-making.

Experience

- Gojek

Machine Learning Engineer Intern

Mar 2020 - Oct 2020

- Developed an open-source ML Feature Store, optimizing data processing efficiency for real-time matchmaking models using Python, Java, Golang, Kafka, and Redis.
- Resolved a Redis schema mismatch in production, ensuring seamless data ingestion and preventing system downtime.
- Designed and deployed a real-time analytics dashboard with Grafana and GCP BigQuery, enhancing data visibility for stakeholders.

- Tinkertanker

Software Engineer Intern

Jan 2018 - Apr 2018

- Engineered a robust instructor-course allocation system using Python, Django, and PostgreSQL, replacing a manual spreadsheet-based process and improving efficiency.
- Developed a responsive UI with Jinja, HTML, and JavaScript, enhancing usability and accessibility.
- Implemented CI/CD pipelines with GitHub Actions, improving deployment automation and system reliability.

Projects

- Flowmotion

Sep 2024 - Nov 2024

<https://mrzzy.co/work/flowmotion-real-time-routing-for-sg-drivers>

<https://github.com/ZhiXin18/flowmotion>

- Built a real-time traffic congestion routing app leveraging live camera feeds and machine learning to optimize route recommendations.
- Integrated a YOLOv8-based ML model for congestion analysis and real-time route optimization via the OSRM API.
- Developed a cross-platform mobile app with Flutter, managing cloud infrastructure using Firebase and Google Cloud for scalable deployment.

- Providence

Nov 2023 - Nov 2024

<https://mrzzy.co/work/providence-data-engineering-personal-finance>

<https://github.com/mrzzy/providence>

- Designed and automated an ELT pipeline integrating multi-source personal finance data, enhancing budgeting insights.
- Optimized cloud architecture by migrating to DuckDB, reducing query costs and improving data retrieval speeds.
- Developed an interactive financial dashboard using Apache Superset, enabling real-time data visualization and decision-making.

Education

- Nanyang Technological University

Bachelor of Computing in Computer Science

Aug 2023 - Present

- Ngee Ann Polytechnic

Diploma in Information Technology

Apr 2018 - Apr 2021

Skills

- Data Engineering: Python, SQL, Spark, DBT, Prefect, Data Modeling, Data Warehousing, ETL Pipelines, Data Contracts
- Cloud Infrastructure: GCP, AWS, Terraform, Docker, Kubernetes, CI/CD, GitHub Actions, Infrastructure-as-Code (IaC)
- Databases / Analytics: PostgreSQL, Redis, BigQuery, DuckDB, Firestore, Data Monitoring, Apache Superset, Grafana
- Software Engineering / DevOps: Java, Golang, TypeScript, Node.js, API Development, Version Control (Git), Unit Testing, Agile, Scrum