

DYLAN NGUYEN

Melbourne, AU

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OBJECTIVE

Data and Software Engineer with 2+ years of experience **designing data pipelines** and **building full-stack applications**. Skilled in **Python**, **Golang**, and **TypeScript**, with expertise across **AWS**, **Azure**, and **GCP**. Strong background in **data engineering**, **backend development**, **optimisation algorithms**, **GenAI** and **ML integration** and **system design**. Seeking opportunities to deliver innovative, high-performance data and software solutions. Willing to relocate to any location.

EDUCATION

Master of Data Science - Swinburne University - GPA: 3.85/4	2024 - 2025
Bachelor of Logistics and Supply Chain - RMIT University - GPA: 3.1/4	2018 - 2022

SKILLS

Programming Languages	Python, Golang, TypeScript, JavaScript (ES6+)
Data Engineering	Apache Spark, Airflow, Kafka, dbt, ETL/ELT pipelines
Databases	PostgreSQL, SQL Server, MySQL, MongoDB, Redis, Neo4j
Cloud Platforms	AWS (S3/EC2/Lambda/RDS/Glue/Redshift), Azure (ADF/ADLS/Synapse)
Software Engineering	REST/GraphQL APIs, Design Patterns, CI/CD pipelines, Git, Testing
Soft Skills	Team Leadership, Cross-cultural Collaboration, Agile/Scrum

EXPERIENCE

Software Engineer - Internship	July 2025 - Now
TMR Global	<i>Melbourne, Australia</i>

- Convert business requirements into clear, actionable technical specifications, enabling efficient translation of product needs into engineering solutions.
- Design and validate application logic with the engineering team, contributing to the delivery of scalable and reliable product features.
- Collaborate closely with the Product Owner, Product Manager, and Tech Lead to ensure on-time, high-quality product delivery.
- Implement and test automation pipelines and application tasks using Next.js, TypeScript, and scheduled jobs, boosting delivery speed and reducing manual effort.

Data Engineer - Singapore Aviation Company Project	March 2023 - October 2024
FPT Software	<i>Hanoi, Vietnam</i>

- Engineered and optimised ETL pipelines with **Talend**, **BigQuery** and **Airflow**, resulting in a **70% reduction in job runtime** and **90% less downtime**, significantly improving data availability for business users.
- Redesigned and rebuilt reporting workflows in collaboration with Finance and Operations teams using **SQL Server SSRS**, **cutting complex report load times by 50%** and enhancing decision-making efficiency.
- Leveraged **Terraform** and custom dbt-like **Python** to generate, deploy and optimise transformation scripts for **BigQuery**.
- Actively contributed to internal knowledge sharing, documented, and introduced new technology for a team of 10+ engineers, fostering continuous learning and improving team-wide productivity.
- Implemented a combination of automated and manual data quality checks, ensuring high accuracy, reliability, and trustworthiness of reports and datasets delivered to end-users.

- Led small teams of 2–3 engineers to deliver Proof of Concepts and pilot projects, evaluating feasibility of new technologies and accelerating their adoption into existing systems.
- Automated recurring ETL tasks with **Python** and **SQL**, reducing manual processing time by 60% and freeing up team resources for higher-value work.
- Designed and deployed ETL pipelines using **Azure Data Factory** and **Synapse**, enabling automated report generation from structured and semi-structured data sources.
- Extracted and integrated data from diverse sources into the data lake staging zone using ETL tools (e.g., IICS–Cloud Integration).

PROJECTS

GenAI Onboarding Platform - Welkom - Unihack 2025

Next.js, DataStax, Langflow, OpenAI API

- Engineered a gamified onboarding platform to help international students overcome cultural barriers and social isolation.
- Built an **GenAI** chatbot leveraging LangChain and OpenAI GPT-4 to deliver personalised recommendations, event discovery, and interactive gamified challenges.
- Enhanced chatbot efficiency and reliability with **RAG**, **semantic search**, and **reranker models** for improved response accuracy.
- Evaluated multiple embedding models (OpenAI-text-ada-embeddings-002, Gemini-text-embedding-005, HuggingFace-Multilingual-E5-base) to benchmark retrieval quality and optimise performance.
- Engineered and deployed a full-stack chatbot solution within a **Next.js** backend and frontend, enabling seamless user interaction.

Smart Class Allocation Platform - Classforge

(Next.js, FastAPI, Neo4j, Redis, GNNs, OpenAI GPT)

- Developed backend services using **FastAPI**, **Neo4j**, and **Redis** for an AI-driven classroom allocation platform.
- Optimised system throughput with caching strategies and a distributed **Python RQ** worker cluster for large-scale computation.
- Designed and implemented **CP-SAT optimisation** and **social network analysis** to generate balanced student cohorts focused on wellness.
- Integrated a graph-based explainable AI chatbot using **GPT-4.5** and **LangGraph**, enabling interpretable student status assessments.

Book Review Platform - Beeker

(Go Gin, MySQL, Redis, Langflow)

- Built backend APIs with **Go Gin** and **MySQL** to manage and serve book titles.
- Implemented category-based recommendation features for personalised book suggestions.
- Integrated **Langflow** to enable semantic search, allowing users to find books from natural-language descriptions.
- Optimised query performance using **Redis** caching, reducing response times for frequent searches.

CERTIFICATION

AWS Cloud Practitioner

2023

Udacity Data Science

2023

REFERENCES

Mr. Rin Nguyen

Software Engineer - Falcon Finance

Mr. Luke Benson

Project Manager - TMR Global Founder

Mr. Khai Tran

Data Engineer - FPT Software