Lim Yong Leong

Data Engineer | Quantitative Analyst | Computer Science Student

Final-year Computer Science student specializing in Data Engineering and Quantitative Analysis. Proven experience at Quantalpha LLP in redesigning database architectures (PostgreSQL) and building secure automation infrastructure using Docker and Django. Proficient in building high-frequency data pipelines (crypto OHLCV) and validating trading strategies using VectorBT Pro. Eager to leverage technical expertise in backend engineering and financial data analytics.

Technical Skills

- Languages: Python, SQL, Java
- Data Engineering: PostgreSQL, Redis, Docker, DefiLlama API
- Web & Frameworks: Django, HTML/CSS
- Quantitative Analysis: VectorBT Pro, Pandas, NumPy, Backtesting, Financial Modelling
- Tools: Git/GitHub, VS Code, Jupyter Notebooks, Linux Environments

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Education

1. IGCSE | Taylor's International School Puchong Jan 2017 – Dec 2020
2. Foundation in Computing | Taylor's University Apr 2021 – Aug 2022 - (CGPA 3.47)
3. Bachelor of Computer Science (Honours) | Taylor's UniversityAug 2022 – Aug 2025 (CGPA 3.37)

Work Experience

1. Quantalpha LLP | Data Engineer & Quantitative Analyst Intern Sep 2025 – Mar 2026

- Database Architecture Overhaul: Spearheaded the migration of the company’s legacy database to a scalable multi-schema PostgreSQL architecture. Segregated data by providers (Binance, DefiLlama, Glassnode), resulting in optimized query performance and improved data organization.
- Infrastructure Automation: Developed a full-stack Django internal dashboard featuring a "One-Click Schema" tool. Automated the generation of tables, triggers, and indexes, eliminating manual SQL errors.
- Secure Execution Environment: Engineered a job scheduling system using Docker containers and Redis queues. Created isolated "code sandboxes" for user scripts, preventing resource exhaustion and ensuring 100% server uptime during heavy data updates.
- Quantitative Data Pipelines: Built robust Python pipelines to ingest and normalize data.
- Strategy Validation: Utilized VectorBT Pro to simulate and stress-test trading strategies, analyzing Sharpe Ratios and Drawdowns to support the trading desk's decision-making.

Key Projects

1. Group leader for final year project - Real Time Sales Prediction Website using Machine Learning.
2. Redesigned core database architecture and built automated Django & Docker pipelines to eliminate manual data workflows.
3. Executed rigorous backtesting simulations using VectorBT Pro on multi-year crypto datasets. Analyzed key risk metrics to guide trading decisions

Contact

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