Victor Lai

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EDUCATION

National University of Singapore

Bachelor of Computing (Honours) in Computer Science

- · Focus Areas: Database Systems, Parallel Computing
- · Global Merit Scholar

EXPERIENCE

Qube Research and Technologies

May 2025 - Dec 2025

Expected: May 2026

Quantitative Technology Intern

Hong Kong

Morgan Stanley

May 2024 – Aug 2024

Technology Summer Analyst

Singapore

- Developed a close-based generative AI chatbot with Retrieval-Augmented Generation and LLM for FX trading
- Implemented an ETL pipeline to expand and transform knowledge base for optimized similarity search
- Engineered a hybrid document search of 92% accuracy, by chaining embedding and statistical based vectorizers
- · Achieved 74% answers accuracy (ROUGE, METEOR) with a compact 248M parameter large language model
- Researched on LLM architectures, optimized prompt variations and applied CPU-friendly inference methods

Switcheo Labs May 2023 – Jul 2023

Software Engineer Intern

Singapore

- Engineered 14 new database tables and Node.js scripts to track real-time trading insights
- Implemented APIs for the trading exchange's users address book
- Migrated EVM Explorer website and database servers from AWS to GCP and configured CI pipeline
- · Built ETL jobs to populate on-chain data into spreadsheets, reducing daily manual processing by 1 hour

Cyberlitmus Jan 2022 – Apr 2022

Software Engineer Intern

Singapore

- Developed RESTful APIs in Go, handling data for large user groups
- Integrated automated CRON jobs for efficient data updates and generating email reports of email breaches
- · Created over 25 interactive front-end websites simulating real-world phishing attacks with Angular

PROJECTS

- <u>LeData James</u>: Automated data pipelines to process and analyze live NBA player stats, enabling real-time trade prediction models and player similarity analysis
- Mood Sync: Full-stack iOS app to share moods with partner and automate responses
- · Closer: Server supporting CRUD operations, Redis-based caching, WebSocket messaging for a social platform

SKILLS

- Languages: C++, Go, Java, MongoDB, Python, PostgreSQL, Swift, TypeScript
- Frameworks: Angular, Django, Hadoop, MapReduce, Node.js, NumPy, Pandas, Pytorch, Redis, Spark, Scikit-learn
- Technologies: Docker, Git, Google Cloud Platform, IntelliJ, Kubernetes, Linux, PgAdmin, Postman, VSCode