Victor Lai

vlai69863@gmail.com | victorlai.me | github.com/victorlaiyeeteng | +65 9831 2852

EDUCATION

National University of Singapore   Expected: May 2026
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
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 in Redis for optimized similarity search
- Engineered a hybrid document similarity search, by chaining embedding and statistical based vectorizers coupled with cross-encoding model using Scikit-learn and Pytorch, attaining a search accuracy of 92%
- 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

- LeData James: 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