

VU HAI LONG

Senior Software Engineer

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PROFESSIONAL SUMMARY

Senior Software Engineer with 7 years of experience designing and shipping high-performance backend systems in the trading domain. I build platforms that move fast and stay reliable under pressure, with deep work in C#, Python, .NET Core, distributed messaging, and ML inference infrastructure. I currently lead a small team, mentor engineers, and partner with managers on planning, hiring, and one-on-ones.

EXPERIENCE

Titansoft | *Singapore*

Jun 2019 to Present

Senior Software Engineer

Jan 2022 to Present

- **Led the build of the company's Risk Management System**, a centralised platform aggregating risk profiles across all customers and running automated systems that detect bot traffic and fraud in near real time. Lifted operator productivity by 2 to 3x and improved profit margins on the affected book of business.
- **Spearheaded new modules on the AutoTrading platform**, architecting backend services that combine multithreading, event-driven processing on Kafka, and Redis-backed caching to deliver low-latency, high-throughput execution.
- **Designed and productionised ML inference infrastructure** to bring Python-trained models (XGBoost, LightGBM) into a .NET runtime, scaling from a few calls every 15 minutes to roughly 400,000 calls per day across 10 servers. Evaluated multiple integration paths (subprocess invocation, native C# wrappers, ONNX/ML.NET, dedicated Python services, or exporting to self-contained C# code) and chose the right approach per workload.
- Led a team of engineers: drove sprint planning, ran code reviews, conducted technical mentorship, supported managers in one-on-ones, and owned onboarding for new hires. Completed formal training in Agile, Scrum, leadership, and team management.
- Contributed to the Data Engineering function: built ETL pipelines that extract, clean, and load data into BigQuery, on-prem warehouses, and hybrid cloud targets, with a focus on consistency and analyst trust in the data.

Software Engineer

Jun 2019 to Dec 2021

- Built and maintained full-stack web applications using Python, C#, .NET Core, Vue.js, and SQL Server, owning features end to end from spec through production.
- Specialised in backend services optimised for high throughput, applying multithreading, caching, and event-driven patterns with Redis and Kafka.
- Promoted to Senior Software Engineer in under three years based on technical contributions and team impact.

Titansoft | *Singapore*

May 2018 to Jul 2018

Software Engineer Intern

- Designed and shipped an internal training management system end to end, integrated with the company's HR system, finance system, and Google Calendar. Built on .NET Framework, jQuery, and SQL Server. Received a full-time return offer.

Ecquaria Technologies Pte Ltd | *Singapore*

May 2017 to Jul 2017

Software Engineer Intern

- **Contributed to the design and implementation of the Singapore General Hospital (SGH) Mortuary Management System**, a clinical operations platform serving a critical hospital workflow. Owned key portions of the front-end interface, translating clinical requirements into responsive, intuitive screens used daily by hospital staff.

National University of Singapore | *Singapore*

Aug 2016 to Apr 2019

Teaching Assistant (Part-time)

- Taught and mentored undergraduate students across multiple core Computer Science modules over three academic years, including **CS1231 Discrete Structures**, **CS2020 / CS2040 Data Structures and Algorithms**, and **CS3201 / CS3202 Software Engineering Project**.
- Ran weekly tutorials and labs, graded assignments, and provided one-on-one debugging support, sharpening the communication and mentorship habits I now apply as a team lead.

EDUCATION

National University of Singapore (NUS)

Aug 2015 to May 2019

Bachelor of Computing (Honours) in Computer Science · GPA 4.56 / 5.00

- **ASEAN Undergraduate Scholarship** awarded by NUS, covering full tuition and living costs.
- **Certificate of Distinction** in the Information Retrieval focus area.

SELECTED OPEN-SOURCE PROJECTS

- **[SingletonJob](#)**: Lightweight Redis-backed singleton background jobs for multi-instance .NET deployments.
- **[boostexport](#)**: Export XGBoost, LightGBM, and CatBoost models to self-contained C# or Go code, with no Python runtime required at inference time.

TECHNICAL SKILLS

Languages: Python, C#, SQL (advanced) · JavaScript / TypeScript (working) · Bash, C++, Go, Java (familiar)

Backend & APIs: .NET Core, ASP.NET, Flask, FastAPI, multithreading, event-driven design

Data & Messaging: Redis, Kafka, BigQuery, SQL Server, pandas, ETL pipelines

ML in Production: XGBoost, LightGBM, CatBoost, Python-to-.NET interop

Frontend: Vue.js, HTML, CSS

Infrastructure: Kubernetes, Docker, Git, hybrid cloud, on-prem deployments

Practices: Agile, Scrum, code review, technical mentorship, system design