

YAO LONG TAN

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EXPERIENCE

Full-stack Software Engineer, Thales

Aug 2025 - Present

- Implemented critical fixes and resolved 100+ security issues flagged out within 3 months, significantly improving system robustness, stability, security, and maintainability.
- Refactored legacy modules, reducing cyclomatic complexity by 40% and improving maintainability for the engineering team.
- Efficiently mapped a large, complex system into structured flow diagrams, improving documentation clarity.
- Maintained end-to-end traceability and accountability by managing requirements and change requests through Jira in a Waterfall environment
- Conducted targeted data analysis to support refinement of an existing feature, providing insights that informed implementation decisions
- Independently diagnosed and resolved production issues in a mission-critical system, delivering timely and effective fixes

Full-stack Software Engineer Intern, Vibefam

Jan 2024 - July 2024

- Championed marketing analytics feature using AWS, providing complete documentation for maintenance.
- Built scalable backend solutions with TypeScript, Firebase Firestore, and Cloud Functions.
- Wrote extensive testing using Jest framework to ensure product robustness, and practiced Test Driven Development.
- Conceptualized and developed frontend solutions with VueJS, including a reusable component that maintained product consistency and improved user experience by decluttering the UI.

Full-stack Software Engineer Intern, Azendian Solution

May 2023 - Aug 2023

- Developed REST APIs in Express.js for 4 projects that served data to the React front-end based on over 10,000 real-time sensor outputs, from PostgreSQL and Azure databases.
- Designed and implemented robust backend from scratch for a dashboard console that improves real-time visibility by 100%.

PROJECTS

Freelance Project Developed a custom company website from scratch during my free time, focused on SEO optimization using Next.js and Supabase. Includes an admin interface for managing displayed products. ([Website](#))

Ecommerce Platform A scalable and robust online marketplace platform connecting merchants and users. Built a full-stack web app with NextJS for frontend, Go and Gin for RESTful backend. Utilized gRPC protocol for backend microservices communication. Used K8s, Helm and Tilt for local development. Used Github Actions, ArgoCD, Helm, GKE, and Terraform for automated CI/CD pipeline. ([Repository](#))

Admin Portal A highly available and scalable solution for admin staff to handle users and points accounts. Developed microservices in Go, Python, and NextJS. Utilized AWS Serverless architecture to enable robust system. Led a team of 6 in designing the solution architecture, and development of the features aligning with the project requirements. ([Demo](#)) ([Repository](#))

Sysadmin Platform, Cob Dedicated platform for system administration challenges, inspired by LeetCode. Developed microservices in Go and Python that are integral part of the system. Utilized RabbitMQ, Kubernetes, Helm, and Tilt. Collaborated in a team of 6 to develop backend APIs to communicate effectively with the various microservices. ([Slides](#))

SKILLS

Languages: Java, Python, JavaScript/Typescript, Go, Kotlin

Frameworks: Node, Express, Gin, Spring Boot, React, Vue

Database: MySQL, MSSQL, PostgreSQL, MongoDB, Firebase, Supabase, OpenSearch/ElasticSearch

DevOps/Infra: Docker, Kubernetes, AWS, Firebase Cloud, Helm, Tilt, ArgoCD, Kafka, MQTT, IBMMQ

Certificates: AWS Associate Solutions Architect, Oracle Java Foundations Associate

EDUCATION

Bachelor of Science, Computer Science, Singapore Management University

Aug 2021 - June 2025

Diploma in Engineering, Computer Engineering, Singapore Polytechnic

Apr 2018 - Apr 2021