

Chun Jia Jun Louis

Software Engineer

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TECHNICAL SKILLS

Python, TypeScript, React, SvelteKit, FastAPI, PostgreSQL, pandas, Tailwind CSS, Plotly.js, AG Grid, Docker, Git

EDUCATION

Singapore Institute of Technology

Aug 2022 – Apr 2026

Bachelor of Science with Honours in Software Engineering

Coursework: Machine Learning, Software Engineering, Database Systems, Cloud Computing, Secure Software Development

Singapore Polytechnic

Apr 2017 – May 2020

Diploma in Electrical and Electronics Engineering

Coursework: Embedded Systems, Programming Fundamentals, Electronic Circuits, IoT Applications

WORK EXPERIENCE

AMILI Pte Ltd, Singapore

May 2025 – Apr 2026

AI Engineer Intern | Southeast Asia's first precision gut microbiome company

- Replaced a manual R-script workflow with a centralised microbiome analytics dashboard using React, FastAPI, and PostgreSQL, featuring real-time WebSocket updates, interactive Plotly.js charts, and Nginx routing across multiple internal tools
- Led frontend development end-to-end on an internal research pipeline automation tool, delivering interactive chart types, live job tracking via WebSockets, and CSV-driven analysis workflows using SvelteKit and Tailwind CSS
- Launched the e-commerce page for AMILI's product using Webflow CMS with dynamic content collections, interactive sliders, form routing, and cross-device testing, coordinating multi-stakeholder sign-off before production launch

ML Data Validator — Capstone Project

- Engineered a 71-feature extraction pipeline and trained one Logistic Regression classifier per column via GridSearchCV, achieving 86-97% test accuracy across 7 column types
- Designed a multi-stage validation pipeline covering whitelist matching, numeric normalisation, fuzzy typo detection, boundary rules, and ML classification with categorical auto-detection across 3 demo datasets
- Designed a fully offline, PDPA-compliant architecture with zero external API calls and 6 security controls including CORS restriction, Pydantic schema validation, and path traversal protection
- Wrote 30 pytest tests across 7 test classes plus end-to-end API integration as mandatory quality gates before every ML pipeline change

Whizpaze Pte Ltd, Singapore

Mar 2019 – Sep 2019

Engineering Intern

- Conducted system testing and troubleshooting for hardware and software products across GovTech-related deployments alongside senior engineers
- Participated in product demonstrations during lab tests, field trials, and client sessions, carrying out deployment QA and documenting bug reports