

Yong Li An

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Technical Skills

- **Frontend:** TypeScript, JavaScript, React, React Native, Expo
- **Backend:** Python, NestJS, Express, Node.js, Prisma, Kysely, PostgreSQL, Scikit-learn, Pandas
- **DevOps & Infrastructure:** Git, Docker, GitHub Actions, Playwright, Hetzner VPS, Caddy

Work Experience

Full Stack Engineer (Part Time), Agrolitik (November 2024 - Present)

- Built and deployed the full backend from scratch (Express, PostgreSQL, Docker) on Hetzner VPS with Caddy, systemd, and automated CI/CD via GitHub Actions and EAS.
- Shipped a React Native app to the Play Store managing 11 active crop cycles, with inventory and harvest logging on full CRUD APIs via Prisma.
- Integrated soil sensors via Modbus RTU over USB OTG, using the Android device as the reader directly and cutting the diagnostic kit from SGD 300 to SGD 99.
- Co-developed Agrolitik-Intelligence, a computer vision engine predicting leaf nitrogen at 70% accuracy on a 1,000-image dataset, with fertilizer recommendation based on inventory and recorded soil sensor data.

Junior System Analyst for Academic Systems (Part Time), NUS Information Technology (August 2024 - May 2026)

- Built end-to-end test suites (WebDriverIO, Playwright) covering 282 test cases across 16 user flows, structured for headless CI/CD execution and cutting regression runs from several hours of manual testing to under 30 minutes.
- Authored comprehensive UAT test cases and conducted manual testing across multiple feature releases, systematically identifying and documenting defects before production deployment.
- Identified reporting inefficiencies in a legacy Java system and independently drove migration to Power BI Report Builder, consolidating data from SharePoint and Oracle into a unified, maintainable reporting pipeline.

Backend Engineer and Product Lead Intern, Maid Without Borders Singapore x Studio20 (January 2025 - August 2025)

- Took ownership of a stalled Figma-stage MVP, translating MOM regulations into scoped UI/UX flows and driving delivery as project manager across Studio20 frontend staff and external stakeholders.
- Architected and built the backend from the ground up using NestJS, PostgreSQL, Kysely, and Docker, delivering 89 REST endpoints to support the React Native mobile app.
- Implemented Singpass Login for user authentication (OIDC with PKCE) and Myinfo API for auto-filling government-verified user data in the mobile app.
- Led recruitment of 2 technical interns, screening 20 candidates through problem-solving case interviews and closing both placements.

Software Engineering Intern, Tune Protect Group (May 2024 - July 2024)

- Led development of a product landing page with quotation and payment flows using Gatsby and React to boost ecommerce sales.
- Enhanced the partner dashboard by adding new features and improving overall UX, expanding the platform's capability for business partners.
- Implemented audit trail functionality to log key system actions using Express and PostgreSQL, supporting traceability and compliance requirements.

Project

Spyder

- Built a stock screening platform on Django, PostgreSQL, and Docker, storing 10 years of technical data (1.3M daily OHLCV records) and 5 years of fundamentals across 500+ companies, with a scheduled cron job ingesting fresh market data after each daily close.
- Compute TTM-based valuations for 500+ companies and cache them alongside fundamental data, keeping multi-factor scoring, filtering, and backtesting responsive without recalculating on every query.

Education

National University of Singapore (NUS), Singapore (August 2022 - June 2026) - Bachelor of Computing (Honours), Award: Tuition Grant

Sunway College, Malaysia (March 2020 - June 2021) - CIE International A Level: Biology (A*), Physics (A*), Chemistry (A*), Mathematics (A*), Award: Merit Scholarship