

Tianhao Zhou (Ethan)

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SUMMARY

Full stack engineer with 4+ years of experience, working mainly in TypeScript, Node.js and React. At Linfox, migrated a logistics platform's user and permission data from Microsoft Dataverse to PostgreSQL on AWS RDS, cutting authentication time by over 50% for 3,000+ users. Work across serverless backends (AWS Lambda), database design and CI/CD. Previously built healthcare and e-commerce platforms. Melbourne-based Australian permanent resident.

FUNCTIONAL EXPERTISE

- TypeScript, JavaScript, Node.js, React
- AWS Lambda, RDS, Serverless Framework
- PostgreSQL, Prisma, Snowflake
- CI/CD, GitHub Actions, Docker
- Integration Testing, REST APIs
- Performance Engineering (database, build size)

FUNCTIONAL EXPERTISE DEMONSTRATED

Linfox

Feb 2025 – Present

Australia's largest privately owned logistics company, providing supply chain solutions to major retailers, manufacturers, and governments.

Full Stack Developer

Main project: redesigning the customer portal, covering a new authorisation model that replaced Microsoft Dataverse with PostgreSQL, and end-to-end ordering into Blue Yonder TMS, on a serverless architecture.

- Took ownership of backend data layer design by implementing PostgreSQL + Prisma within AWS Lambda serverless architecture, building a scalable and type-safe system supporting 3,000+ users in a logistics platform.
- **Performance optimization:** Migrated critical user-contract data from Microsoft Dataverse to PostgreSQL, deploying the new database to AWS RDS and integrating it directly with Lambda functions. This cut average authentication response time by over 50%. Resolved deployment bottlenecks by replacing legacy bundling with ESbuild, reducing artifact size from 100MB+ to under 20MB and enabling faster, more reliable production releases.
- **Order flow to TMS:** Worked with the portal team on end-to-end ordering, from the order creation interface to status and error feedback in the portal, with orders created in Blue Yonder TMS through an integration layer owned by another team.
- **Developer experience:** Built and standardised a local Serverless development environment, significantly improving debugging efficiency and reducing reliance on cloud deployments within a 2–3 person engineering team.
- **CI/CD pipeline:** Designed and integrated end-to-end integration testing framework into CI/CD pipelines, reducing regression risk and improving overall system stability.
- **Database upgrades:** Completed a major Prisma ORM version upgrade, managing breaking changes while keeping production stable.
- **Data warehousing:** Managed and optimised the Snowflake data warehouse so operational reporting reads data efficiently.
- **Frontend performance:** Migrated Material UI table views to AG Grid, adding sorting and column reordering; used TanStack Query caching to cut redundant requests during navigation, and Zod to validate request payloads.
- Led end-to-end migration of 10,000+ records (users, permissions, customer data) with zero data loss, ensuring seamless transition and uninterrupted business operations.
- Cross-functional coordination: Contributed to system design decisions and worked closely with cross-functional team members to prioritise and deliver scalable, production-ready solutions.

AUXITA

Jan 2023 – Nov 2024

Healthcare technology company founded in 2015, partnering with MCK, Pfizer, and Innomar to develop innovative digital health solutions.

Software Engineer

Develops platform features, implements integrations, and enhances system usability for healthcare providers.

- **Problem-solving:** Engineered innovative solutions to expand platform accessibility, integrating Azure AI tools to automate PDF enrollment and onboard 10,000+ potential users.
- **Cross-functional collaboration:** Developed Prescriber admin portal and fax enrollment features, enabling seamless integration of external prescribers and reducing administrative workload by 80%.
- **Programming in MERN stack:** Implemented platform features using multiple programming languages, creating scalable solutions for prescriber engagement and system efficiency.

TECKS

Dec 2021 – Jan 2023

A compact IT service provider with 5 employees delivering technology solutions for digital businesses.

Full Stack Developer

Developed and optimized e-commerce platform for Future Golf, enhancing website performance and user experience.

- **Programming in PHP:** Engineered new golf tee time booking page using PHP, reducing average booking time by over 50% through optimized design and functionality.
- **Proficiency in SQL:** Integrated SendGrid email APIs and templates, streamlining email communication processes and reducing template modification time by 40%.
- **Cross-functional Collaboration:** Worked closely with a team of 2 developers to implement website enhancements and resolve technical challenges for Future Golf platform.

PROJECTS

Shopify × YunExpress Cross-border Order Automation · TypeScript, Node.js, SQLite, Express.js, GitHub Actions · 2025

- Built and deployed a production automation system for a cross-border e-commerce business, integrating multiple third-party APIs to eliminate manual order fulfillment workflows.
- **Multi-API integration:** Orchestrated three external systems with distinct authentication mechanisms — Shopify Admin REST API (OAuth2 client credentials), YunExpress OpenAPI (HMAC-signed requests), and YunExpress OMS internal API (reverse-engineered via DevTools network capture) — enabling fully automated order forwarding with tracking number assignment and Shopify fulfillment.
- **Reliability engineering:** Implemented idempotent order processing with SQLite state machine, cursor-based incremental sync, and automatic retry logic, ensuring zero duplicate shipments and self-healing on transient failures.
- **Operational tooling:** Built a password-protected management dashboard for non-technical business partners, featuring order forwarding, packing slip printing, pickup scheduling, and daily WeChat push notifications via scheduled cron jobs (Server酱).

- Production deployment & CI/CD: Self-hosted on DigitalOcean VPS with PM2 process management, Caddy reverse proxy with Let's Encrypt SSL, and GitHub Actions pipeline for automated deployment on every push to main.

EDUCATION

Master of Science (Information Technology and Systems). University of Tasmania (Tas, Australia)

Bachelor of Arts (Russian Language and Literature). Beijing International Studies University (Beijing, China)

OTHER RELEVANT INFORMATION

Additional Languages: Mandarin (native), Russian (fluent)

Tools: Git, Agile methodology, Jira