JIANGYE SONG

Full-Stack AI Engineer | TypeScript, React, Node.js & Agentic Systems

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PROFESSIONAL SUMMARY

Software Engineer with a Master of Information Technology (Artificial Intelligence) from UNSW and hands-on experience shipping production AI and full-stack systems. Builds with TypeScript, React, Next.js, Node.js, Python, PostgreSQL, MongoDB and AWS, with a focus on MCP servers, RAG orchestration and agentic workflows. Combines end-to-end product ownership with measurable outcomes, including 80% fewer manual reviews, over 90% faster surcharge processing and automation of 70% of routine customer inquiries.

WORK EXPERIENCE

Tipaload

Mar 2026 - Present

Web Developer

Sydney, Australia

- Developed a multimodal AI Toolkit Server using Gemini to analyze driver-submitted images for unexpected waste and overloaded bins, eliminating 80% of manual administrative reviews.
- Reduced surcharge processing times by over 90% through automated image analysis and workflow integration.
- Designed and implemented an agentic booking agent with RAG retrieval, dynamic cart calculation, autonomous booking and order management, automating 70% of routine customer inquiries.
- Architected n8n-based marketing and lead engagement automations integrating Meta Ads, Service Seeking and Hipages, doubling exposure and increasing lead conversions by 35%.

AusBiz Consulting

Aug 2025 - Jan 2026

Software Engineer Intern

Sydney, Australia

- Built a Coupon Management MCP Server that enabled LLMs to query and validate database schemas, reducing a manual validation workflow from two weeks to 0.5 days.
- Implemented a vector-search-enabled clinical audit CMS using PostgreSQL, pgvector and Cohere embeddings, enabling non-technical staff to manage audit criteria through a web UI.
- Developed an AI receptionist SaaS platform integrating modular RAG chat, real-time calendar tools, email integration and voice modes, standardizing delivery for a six-week client turnaround.

PROJECTS

PZP E-Commerce & Brand Ecosystem

Independent Project

Built an end-to-end retail ecosystem spanning a Next.js website, WeChat Mini Program, Electron/React staff app and product-media infrastructure. Implemented authentication, product search, a promotion and pricing engine, inventory management, bulk imports and media storage.

Next.js, React, TypeScript, Electron, Tencent Cloud, MinIO, Linux

Email Agent

Hackathon Project

Built an AI email triage and digest application with inbound processing, classification, summaries, action-item extraction and a human-in-the-loop review dashboard.

Next.js, TypeScript, PostgreSQL/pgvector, Cloudflare Email Routing, Qwen, PWA

EDUCATION

Master of Information Technology (Artificial Intelligence) University of New South Wales — 2024 - 2025

Distinction Average, WAM 76.25; 90 HD in AI

Bachelor of Computer Science (Advanced Computer Science) Monash University — 2021 - 2023

Distinction Average, WAM 72.0; 84 HD in Games Programming

SKILLS

Frontend: TypeScript, JavaScript, React, Next.js, Angular, HTML5/CSS3, Tailwind CSS, Responsive design, PWA

Backend & Data: Node.js, Express, Python, PostgreSQL, MongoDB, SQL, pgvector

AI & Agentic Systems: Model Context Protocol (MCP), RAG, Vector embeddings, Multi-agent systems, Gemini, Claude, OpenAI

Cloud & Tools: AWS, Docker, Vercel, Git, GitHub Actions, Linux