ANG KAH SHIN

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PROFESSIONAL SUMMARY

I am a Full-Stack AI engineer with 2+ years of industry experience spanning Insurtech, corporate services, logistics automation, and consumer retail. I have shipped AI tools and digitisation platforms at FWD Group and MINDEF, improving productivity by up to 60%, and co-founded Mocha Docs, an AI document-search startup acquired by its enterprise client. I am currently a contract Solutions Architect at Groundcrew.io while studying at SUTD.

EDUCATION

B.Eng. Computer Science & Design | Singapore University of Technology & Design *Sept 2025 – Present*

- Class of 2029; Freshmore curriculum in computational thinking, product design, and software engineering
- Data Driven World (10.020): algorithms, data structures, graph algorithms, OOP with UML, state machines, and ML fundamentals (linear/logistic regression) applied in Python web-app projects
- President, SUTD AI Interest Group (Mar 2026 – Mar 2027) – leading AI/ML events, workshops, and partnerships
- IMBS Maker Guide (Sept 2025 – May 2026)

Diploma in Applied AI & Analytics | Singapore Polytechnic *Apr 2020 – May 2023*

- Machine Learning (statistical ML and analysis); Deep Learning (CNNs, RNNs/LSTMs, reinforcement learning)
- MLOps: model evaluation and tuning, production-level model serving, CI/CD pipelines, and project management
- Big Data Management: ETL data engineering and star/snowflake data warehousing on MSSQL (millions of rows)
- Backend Development (REST APIs, MySQL, full-stack e-commerce marketplace); Data Analysis & Visualisation

RELEVANT EXPERIENCE

Solutions Architect (Contract, Remote) | Groundcrew.io *Oct 2026 – Present*

Solution Architecture · AI-Native Systems · LLM Agents · Document Automation · e-KYC / AML Compliance

- Design and implement AI-native systems for a Singapore-based corporate secretarial startup, spanning the client lifecycle from onboarding through ongoing compliance
- Architecting AI-assisted client management and document drafting and e-signing workflows
- Designing self-served online client onboarding with automated e-KYC verification and AML certification

Seasonal Sales Specialist (Part-time) | Apple Retail *Aug 2025 – Mar 2026*

Customer Experience · Product Knowledge · Retail Tech

- Selected for a fixed-term specialist role; advised customers on Apple ecosystem products and services

Full-Stack Developer (National Service) | MINDEF / SAF – Supply Base North *Nov 2023 – Jul 2025*

AWS · Serverless · Node.js · VueJS · Terraform · Project Management

- Led an 8-person in-house tech team as Project Manager & Lead Developer; held weekly reviews with base command on sprint progress and system health
- Digitised 60%+ of pen-and-paper documentation and workflows, enabling real-time updates and faster decisions
- Drove multiple full product lifecycles from requirements gathering to deployment and monthly maintenance

Full-Stack Software Engineer (Full-time) | FWD Group Innovation *Jul 2023 – Sept 2023*

AWS · Serverless · Node.js · VueJS · NLP · Computer Vision

- Post-diploma contract servicing FWD markets across Southeast Asia; partnered with product owners and business stakeholders to ship product-recommendation features and AI chatbot enhancements
- Maintained uptime and performance of a production chatbot serving thousands of daily customer queries

Co-Founder & CTO | Mocha Docs (Acquired) *2023*

OCR · FAISS · OpenAI GPT API · Hybrid Retrieval (RAG) · Customer Discovery

- Co-founded an AI document indexing and search platform at the launch of GPT-4; owned the backend, a multi-modal OCR pipeline, and hybrid sparse/dense retrieval over FAISS with GPT question answering
- Validated in a 3-month pilot with hundreds of employees at an enterprise client, which acquired the platform

Full-Stack AI Engineering Intern (Internship) | FWD Group Innovation *Mar 2022 – Feb 2023*

AWS · Serverless · Node.js · VueJS · Computer Vision · NLP

- 1-year Polytechnic Technology Programme placement; built and shipped features for FWD's Fi Chatbot platform, bridging front-end UX with AI/ML back-end services
- Researched computer vision and NLP applications; presented findings to engineering leadership

RELEVANT PROJECTS

Lychee AI – Agentic Browser Assistant | Chrome Web Store · SUTD AI Interest Group

TypeScript · React 18 · Vite · Chrome Extensions MV3 · Vercel AI SDK · MCP · OAuth 2.1 · QuickJS-WASM · IndexedDB

- Shipped a model-agnostic AI agent in Chrome's side panel with no backend: 30+ progressively disclosed tools (page reading, DOM control, screenshots, document parsing, two-tier memory) gated by human-in-the-loop approval; published on the Chrome Web Store (Aug 2026)
- Engineered the agent runtime on the Vercel AI SDK with multi-provider adapters, checkpoints, context compaction, crash recovery, sandboxed QuickJS-WASM execution, and an MCP client (OAuth 2.1 PKCE)
- Architected a background deep-research pipeline (Plan, Gather, Reflect, Synthesize, Verify) over structured notebook memory, with a policy-guarded sub-agent for bot-walled sites

Sundown – BLE Indoor Positioning & Patient Monitoring | SUTD · Baby Shark Fund

Vue 3 · AWS CDK · Lambda · DynamoDB · SQS · EventBridge · WebSocket · ESP32-C6 · BLE · CrewAI · Memgraph

- Engineered the full-stack dashboard for a dementia patient tracking system, showing real-time locations on a nursing-home floor plan via BLE trilateration and log-distance path loss modelling
- Architected a serverless AWS pipeline (API Gateway → SQS → Lambda → DynamoDB → EventBridge → WebSocket) with sub-3s end-to-end latency; benchmarked RSSI path loss, trilateration accuracy, and latency
- Conducted on-site nursing home user research and authored the product PRD for a 5-person team

DoThi AI – AI-Assisted Urban Planning for Vietnam | SUTD × VinUniversity, Hanoi

Generative AI · Scenario Simulation · Market Validation · Business Modelling · Investor Pitching

- CTO of a cross-cultural team in a two-week entrepreneurship programme (May 2026); reframed a traffic-routing brief into an AI planning tool that simulates the traffic impact of new developments before approval
- Designed the technical solution and a value-based SaaS model ($30K vs. ~$250K per master-planning engagement); pitched to VinUniversity faculty, industry experts, and founders

ACHIEVEMENTS & COMPETITIONS

- SUTD Baby Shark Fund – Micro-Innovation Grant (BSF2K), Project Sundown | July 2026
- SUTD IDeA Showcase – 5 award nominations incl. Design AI Award (LKYCIC), Project Sundown
- HackSingapore 2024 – 1st Runner-up | June 2024
- Public Service Innovation Challenge – Finalist | August 2024
- HKU PolyHack – Merit Award | July 2023

TECHNICAL SKILLS

Languages: Python · JavaScript · TypeScript · HTML5 · CSS · Swift · SQL · Markdown
AI & Machine Learning: TensorFlow · Keras · PyTorch · scikit-learn · Computer Vision (CNN) · NLP (RNN/Transformers) · Reinforcement Learning · Prompt Engineering
Generative AI & LLMs: LangChain · LlamaIndex · RAG · Fine-tuning · OpenAI API · Anthropic API · Hugging Face · Transformer Architecture · Vercel AI SDK · Model Context Protocol (MCP) · Agentic Tool Use
Data Engineering & Analytics: pandas · NumPy · Statsmodels · Tableau · ETL Pipelines · Apache Spark · MSSQL
MLOps & DevOps: Docker · CI/CD · AWS (Lambda, S3, DynamoDB, API Gateway) · Serverless · Terraform · Git
Web & App Development: ReactJS · VueJS · Node.js · Express · TailwindCSS · SwiftUI · MySQL · Supabase
Design: Figma · Adobe XD · Adobe Photoshop · Canva

Interests: AI/Self-Driving Cars · Data Science · Inline Skating · Aikido · Leadership Coaching · Content Creation · Productivity