

Richard Lee

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Professional Summary

Technical lead and zero to one product engineer building agentic AI systems that automate business operations. Delivered production systems for a US venture backed client and enterprise demonstrations in financial services and utilities, with end to end ownership across agent orchestration, full stack applications, AWS infrastructure, observability, integrations, security and evaluation. AWS AI Engineering Community Builder with earlier experience spanning medical devices, embedded systems, product management and hardware and software integration.

Experience

Chief Architect | IntelWave AI

Apr 2026 - Aug 2026

- Led an engineering team to architect, design, build and deploy agentic systems automating research, lead generation and qualification, asset delivery, attestation, payment collection and customer retention, including production delivery for a US venture backed client.
- Provisioned and operated an AWS platform spanning compute, data, storage, container delivery, identity and access, networking, model inference, observability and analytics using Lambda, Lightsail, Aurora Serverless, PostgreSQL, S3, ECR, IAM, Cognito, Secrets Manager, STS, VPC, Route 53, Bedrock, CloudWatch and Athena.
- Delivered a full stack agent application using CrewAI for orchestration; Arize Phoenix and OpenTelemetry for observability; Stripe, Zoho Sign, Mixpanel, Telnyx and Resend for external integrations; Caddy and OAuth2 Proxy for authentication; FastAPI, Next.js and PostgreSQL for the application stack; Playwright and cron jobs for automation; and Docker, GitHub Actions and AWS OIDC for delivery.
- Built and presented multi agent systems and augmented workflows to prospective enterprise clients using Copilot Studio, OpenClaw and NanoClaw, incorporating knowledge grounding, guardrails and agent evaluations.

Senior Engineer | TeleMedC

Sep 2024 - Nov 2025

- Led and revitalized end to end development of a confidential, next generation medical device, owning both hardware and software architecture to drive progress from R&D concept to market viable prototype.
- Designed and delivered a production grade PCB integrating embedded systems and external peripherals, enhancing image quality and user experience while reducing assembly time and overall system complexity.
- Developed and implemented predictive procurement strategies for approximately 30 components to ensure availability, mitigate stockout risks and maintain project momentum.
- Established an AI driven DevOps workflow using GitHub Codespaces to increase coding efficiency and productivity, enabling rapid iteration and seamless code deployment to embedded systems.
- Created core product documentation and pin configuration diagrams as the single technical source of truth for hardware and software interfaces, supporting broader product and system documentation.
- Managed regulatory compliance documentation as the primary liaison, supporting the legal team with medical device licensing checks and interpretation of relevant QMS and ISO standards.
- Performed end to end system integration across mechanical design, embedded systems, peripheral electronics and application layer software architecture.

Founder | Peasy Labs

Jan 2020 - Aug 2024

- Operated an independent venture lab to systematically identify, validate and prototype new product opportunities across hardware, SaaS and ecommerce, developing end to end expertise across the product and business lifecycle from supply chain and manufacturing to software architecture and market strategy.
- Utilized business level Mandarin to negotiate directly with Chinese suppliers on platforms such as Alibaba.com and 1688.com, reducing component costs by over 30% and securing custom hardware orders.
- Led strategic technical investigations by independently researching and evaluating emerging solutions, including real time embedded communication platforms such as WebRTC and RTOS and scalable cloud based distributed systems.
- Executed comprehensive market validation for multiple product concepts through competitive analysis, value proposition development and creation of go to market frameworks.

Associate Product Manager | Shopee

Aug 2019 - Dec 2019

- Architected and supported the implementation of an internal data monitoring platform for the micro enterprise business unit, enhancing accounting compliance and enabling faster executive decision making.
- Led cross functional collaboration with technical product managers in China to validate complex requirements and align project timelines for regional deployment.
- Identified value capture opportunities by conducting field research in Indonesia, analyzing mobile prepaid balance and data package purchase behaviors to inform strategic product direction for the micro enterprise business unit.

Internship Experience

Earlier product and strategy roles at Rakuten Viki, Photobook Worldwide, Shopee and Enterprise Singapore established a foundation in regional product delivery, analytics and commercial research. The work included launching localized experiences, integrating PayPal, building data dashboards, writing product requirements, coordinating engineering and design teams and evaluating business models across Southeast Asian markets. These experiences developed the product judgment and cross functional perspective now applied to technical architecture and agentic systems.

Product Management Intern | Rakuten Viki

Sep 2018 - Jan 2019

Product Management Intern | Photobook Worldwide

Jul 2018 - Aug 2018

Product Management Intern | Shopee

Jun 2017 - Aug 2017

Infrastructure Solutions Division Intern | Enterprise Singapore

May 2016 - Sep 2016

Recognition, Technical Topics and Applied AI

Recognition: AWS AI Engineering Community Builder; contributed perspectives to CNBC and The Business Times.

Hackathons: 1st Place: Build with TRAE; Top 10: LotusHacks; Top 15: Cursor x Anthropic Hackathon.

Public Presentations: Demonstrated practical applications of AI agents at Amazon, Tencent, Stripe, Superteam, Lorong AI, Association of Chartered Certified Accountants (ACCA), Institute of Singapore Chartered Accountants (ISCA), Singapore Management University (SMU), Network School, SCAPE, Preface, Legal Benchmarks, AI Summit Seoul and ClawCon.

Technical Topics: Presented technical deep dives on OpenClaw and Hermes Agent, covering agent skills, channels, memory, heartbeats, guardrails and deployment across AWS and Raspberry Pi, and implemented MimiClaw as an ESP32 edge assistant.

Applied AI and Selected Builds: Built and demonstrated systems for business opportunity research and lead qualification; financial analysis, financial reporting and accounts receivable automation; agent payment workflows; legal research; video generation; travel insurance assistants; CAD and PCB design generation; autonomous robot navigation; multilingual manufacturing negotiation; medical triage assistants; and ESP32 based personal assistants.

Education

Bachelor of Engineering (B.Eng.), Computer Engineering | Singapore University of Technology and Design (SUTD)

May 2015 - May 2020

Semester Exchange, Computer Engineering | Pohang University of Science and Technology (POSTECH)

Aug 2017 - Dec 2017