

Richard Lee

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Professional Summary

Technical lead with experience spanning agentic AI delivery, medical device engineering and product development. Experience includes leading a small engineering team and taking a medical device from concept to prototype through 27 design iterations. Brings customer discovery, system design and implementation experience across software and hardware.

Core Competencies

Customer discovery, requirements definition, solution design, technical delivery, stakeholder engagement, cross functional coordination.

Technical Skills

AI systems and evaluation: CrewAI, Copilot Studio, Amazon Bedrock, Microsoft Foundry, agent orchestration, grounding, citations, evaluations, prompt injection controls, guardrails and human approval.
Cloud and applications: AWS, Azure, FastAPI, Next.js, PostgreSQL, Docker, GitHub Actions, OpenTelemetry, Arize Phoenix and Grafana.

Experience

Chief Architect | IntelWave AI

Apr 2026 – Aug 2026

- Led two engineers and worked directly with a US client CTO to build, deploy and operate a production agentic platform for research, lead qualification, asset delivery and attestation.
- Delivered a full stack agent application using CrewAI, FastAPI, Next.js and PostgreSQL, with Arize Phoenix and OpenTelemetry for observability.
- Implemented three AWS architectures. Reduced monthly standby costs by 75 percent using Lambda and Aurora Serverless, then consolidated the platform to address cold starts and operational complexity.
- Designed and tested payment collection, electronic signing and customer retention workflows, using Stripe and Zoho Sign for payment and signing capabilities.
- Deployed a Copilot Studio utilities POC with a parent coordinating 17 child agents across operations, finance close and execution readiness, with human approval for consequential actions.
- Built and deployed an Azure legal intelligence POC for the same utilities engagement, combining hourly monitoring of 32 official sources with Microsoft Foundry research, demonstration agreement analysis and citation checks.
- Built a separate insurance workflow POC in Copilot Studio, applying source grounding, guardrails and agent evaluation techniques.

Senior Engineer | TeleMedC

Sep 2024 – Nov 2025

- Led a confidential medical device from R&D concept to a market viable prototype through 27 design iterations across product, hardware and software.
- Designed a production grade PCB and integrated mechanical, embedded, peripheral and application systems. Improved image quality and user experience while reducing assembly time and system complexity.
- Established an AI assisted workflow using GitHub Codespaces to support rapid iteration and deployment during embedded software development.
- Procured 30 components for medical device development and produced interface documentation and pin configuration diagrams for QMS, ISO and medical device licensing work.

Founder | Peasy Labs

Jan 2020 – Aug 2024

- Conducted more than 100 customer interviews to validate a consumer product. Used competitive analysis, value propositions and go to market frameworks to evaluate product opportunities.
- Tested 2,500 SKUs and processed 500 goods across ecommerce operations. A one month ecommerce test generated SGD 10,000 in sales.
- Built proof of concept hardware using IMU and Time of Flight sensors. Evaluated WebRTC, RTOS, embedded communications and cloud services.
- Negotiated directly with Chinese suppliers in business level Mandarin. Reduced selected component costs by over 30 percent and secured custom hardware orders.

Associate Product Manager | Shopee

Aug 2019 – Dec 2019

- Translated business requirements into an internal data monitoring platform for accounting compliance and executive reporting. Coordinated implementation with technical product managers in China.
- Conducted 15 field interviews across Greater Jakarta on mobile prepaid balance and data package purchasing behaviour to inform product direction for the micro enterprise unit.

Internship Experience

Product Management Intern | Rakuten Viki | German and Italian localization. Google Data Studio dashboards using Redshift

Sep 2018 – Jan 2019

Product Management Intern | Photobook Worldwide | Cross functional PayPal delivery. Shopper analytics

Jul 2018 – Aug 2018

Product Management Intern | Shopee | Requirements, user flows and implementation guidance

Jun 2017 – Aug 2017

Infrastructure Solutions Division Intern | Enterprise Singapore | Hospitality Industry Transformation Map research

May 2016 – Sep 2016

Recognition and Presentations

Recognition: AWS AI Engineering Community Builder.

Media: Quoted in CNBC and The Business Times on AI assisted development and practical agent systems.

Industry presentations: Presented agentic commerce and payment workflows at AI Summit Seoul and Stripe, and media generation workflows at Tencent Cloud.

Professional presentations: Presented finance workflows at the Institute of Singapore Chartered Accountants (ISCA) and regional reporting workflows at a remote briefing for the Association of Chartered Certified Accountants (ACCA) in Malaysia.

Technical presentations: Presented agent architecture and software testing workflows at Singapore Management University (SMU), and voice triage prototype development at Amazon during an AWS User Group session.

Education

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

May 2015 – May 2020

Cum Laude | Rolls Royce capstone delivered 35 percent under budget.

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

Aug 2017 – Dec 2017