

Richard Lee

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Professional Summary

Zero to one technical product leader turning operating problems into deployed AI, medical device, SaaS and internal platform products. Combines discovery, requirements, architecture, delivery and evaluation with experience leading engineers, partnering with executives and validating products through measured technical and commercial outcomes.

Technical Skills

Product: Customer discovery, product strategy, product requirements, operating models, workflow design, prototyping, evaluation, go to market planning, QA strategy and cross functional delivery.

Technology: AWS, Azure, CrewAI, Copilot Studio, Amazon Bedrock, FastAPI, Next.js, PostgreSQL, Cloudflare, Docker, GitHub Actions, embedded systems and PCB design.

Experience

Chief Architect | IntelWave AI

Apr 2026 – Aug 2026

- Led two engineers and partnered with a US client CTO to translate high volume operating requirements into a production product, operating model and architecture.
- Defined workflows across research, qualification, asset delivery, approvals, payments, launch and retention, separating agent drafts from review states, authoritative records and approved external actions. Designed and tested payment, electronic signature, SMS, email and analytics workflows using Stripe, Zoho Sign, Telnyx, Resend and Mixpanel.
- Evolved the product through three AWS architectures; reduced measured monthly standby cost by roughly 75 percent in the scale to zero iteration before consolidation reduced cold starts and complexity.
- Deployed an Azure legal POC monitoring 32 approved sources with grounded evidence, citations and escalation; all 24 final evaluations passed.
- Deployed a utilities POC with a Copilot Studio parent coordinating 17 child agents across operations, finance close and execution readiness with human approval gates.
- Built a CrewAI Cloud quotation POC with deterministic parsing and rendering, 60 compliance requirements, pricing guardrails and mandatory commercial review.

Senior Engineer | TeleMedC

Sep 2024 – Nov 2025

- Revived a confidential medical device and drove it 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, improving image quality and user experience while reducing assembly time and complexity.
- Planned procurement for 30 components and authored interface documentation supporting product decisions, QMS, ISO and medical device licensing work.
- Established an AI assisted embedded workflow using GitHub Codespaces to accelerate iteration and deployment across embedded systems.

Founder | Peasy Labs

Jan 2020 – Aug 2024

- Operated a venture lab across customer discovery, requirements, hardware and software prototyping, ecommerce and sourcing; conducted more than 100 customer interviews.
- 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 models with IMU and Time of Flight sensors and evaluated WebRTC, RTOS, embedded communications, cloud services, payments, inventory and order tracking workflows.
- Designed payment, inventory, order tracking, identity, business verification and compliance workflows across product and operating constraints.
- Validated product concepts through competitive analysis, value propositions and go to market frameworks across hardware, SaaS and ecommerce.
- Used business level Mandarin for supplier due diligence and direct negotiations, reducing selected component costs by over 30 percent and securing custom hardware orders.

Associate Product Manager | Shopee

Aug 2019 – Dec 2019

- Translated requirements into an internal monitoring platform supporting accounting compliance and executive reporting, then coordinated implementation with technical product managers in China.
- Conducted 15 field interviews across Greater Jakarta on mobile prepaid balance and data package purchases to inform product strategy for the micro enterprise unit.

Internship Experience

Four regional internships established product judgment across German and Italian localization, Google Data Studio dashboards using Amazon Redshift data, PayPal delivery with design and engineering teams, ecommerce PRDs, wireframes and test plans, and business model research across Southeast Asian markets.

Product Management Intern | Rakuten Viki | Localization and Redshift dashboards

Sep 2018 – Jan 2019

Product Management Intern | Photobook Worldwide | PayPal delivery and analytics

Jul 2018 – Aug 2018

Product Management Intern | Shopee | PRDs, user flows and implementation

Jun 2017 – Aug 2017

Infrastructure Solutions Division Intern | Enterprise Singapore | Business model research

May 2016 – Sep 2016

Recognition and Presentations

Recognition: AWS AI Engineering Community Builder; 1st Place at Build with TRAE; Top 10 at LotusHacks; Top 15 at Cursor x Anthropic Hackathon Malaysia.

Product presentations: Demonstrated AI products at Amazon, Tencent, Stripe, SMU, ACCA, ISCA, AI Summit Seoul, SCAPE, Legal Benchmarks, SuperAI and Preface.

Selected products: Built MimiClaw on ESP32 and medical triage, legal research, finance reporting, payment, business opportunity, video generation, travel insurance, robotics, CAD and PCB demonstrations.

Technical topics: Presented agent architecture, skills, memory, guardrails, observability, payment protocols, governed financial reporting, business intelligence, cloud deployment and edge assistants.

Community roles: NTU career mentor, SUTD candidate interviewer and hackathon judge for Agora, Hack&Roll, Singapore Institute of Management and TinyFish.

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