

Terry Lee

Data Strategist | Engineering Leader | Technical Architect

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EXECUTIVE SUMMARY

Engineering Leader and Technical Architect with 30 years of experience delivering award-winning, large-scale systems in **Finance, Biotech, and Healthcare**. Expert in architecting reliable, cloud-native solutions that drive market capture and industry leadership. **Winner of the 2025 Global vLEI Hackathon** for automating complex digital credentialing to simplify global trade and financing.

CORE COMPETENCIES

- **Strategic:** Technical Architecture, Market Capture Strategy, Data Policy & Rights, Semantic Modeling.
- **Engineering:** Distributed Systems, Scalable Orchestration, Digital Signatures, AI/LLM Integration.
- **Cloud & DevOps:** AWS (EC2, S3), Docker, Linux, CI/CD Pipelines.

PROFESSIONAL EXPERIENCE

DATASWYFT LTD, Cambridge UK

Technology Innovation Architect / Fractional Principal Engineer

SEPT 2020 - PRESENT

- **Architecting** next-generation data protocols to unlock ecosystem value, focusing on scalable, secure, and privacy-preserving data exchange
- **Designing** the technical vision for the Dataswyft Wallet, enabling secure personal data mobility at scale for global markets
- **Leading** the development of automated orchestration services to reduce operational friction in complex data environments
- **Value Delivered:** Established technical leadership in decentralized identity, positioning the company as a key player in data sovereignty

WMG, UNIVERSITY OF WARWICK, Coventry UK - Software Engineer

AUG 2018 - AUG 2020

- Bridged academic research with commercial deployment by delivering high-impact MVPs and pilots
- Designed permission frameworks and machine learning algorithms for secure data environments
- **Value Delivered:** Successfully transitioned complex research into functional, market-ready prototypes

NOGGIN PTE LTD, Singapore - *Principal Software Engineer*

JUNE 2015 - JULY 2018

- Primary Architect for a data platform specializing in intent inference and recommendation engines
- Defined robust data contracts to ensure interoperability between back-office systems and front-end applications

KOOPRIME PTE LTD, Singapore - *CTO*

MARCH 2014 - JUNE 2016

- Directed information management strategies for large-scale Biotechnology and Bioinformatics initiatives
- Architected scalable healthcare information systems utilizing **HL7** standards to ensure seamless data interoperability across disparate clinical and laboratory platforms
- **Value Delivered:** Transformed fragmented medical data into high-integrity, interoperable assets, enabling cross-institutional research and clinical efficiency

INDEPENDENT SOFTWARE ARCHITECT, Singapore - *Software Architect & Developer*

APR 2009 - 2014

- **Product Leadership:** Designed, built, and deployed a comprehensive Dental Lab Process Management System from the ground up as a solo architect
- **System Innovation:** Engineered a custom Domain Management System allowing multi-tenant control across international lab entities
- **Real-time Synchronization:** Integrated a message bus (ActiveMQ) to ensure immediate data consistency across multi-country laboratory synchronizations
- **Value Delivered:** Transformed manual dental laboratory operations into a scalable, digital enterprise platform covering the full SDLC from ordering to multi-country billing

EARLY CAREER HIGHLIGHTS, Singapore

1996 - 2009

- **Strategem Technologies:** Designed a high-performance Financial Betting Platform using real-time Reuters price feeds. Developed Data Engine and Market Maker platforms
- **BMT Asia Pacific:** Lead Solution Engineer for MSM projects; integrated web systems with SAP and developed Access Control/Inter-Company Billing using RFID
- **Fuziq Pte Ltd:** E-Commerce Consultant; co-developed dynamic pricing engine patent
- **SES Systems:** Developed high-performance financial trading systems
- **National University of Singapore (BioInformatics Centre):** Research Officer developing SQL-92 GUI and XML workflows
- **Centre for Natural Product Research:** Research Biologist focused on R&D for pharmaceutical information systems

TECHNICAL PROFICIENCIES

- **Languages:** Elixir (Phoenix/Ash), Python (FastAPI/BioPython), Java (Vertx/Swing), Ruby (Rails/Hanami), Scala, Rust, Node.js, C#, PHP, Perl
- **Infrastructure & AI:** AWS (EC2, S3), Docker, Linux, PostgreSQL, MongoDB, AI/LLM Integration (Prompt Engineering, Agent Development, MCP)
- **Specializations:** Semantic Data Engineering, **Verifiable Credentials (vLEI)**, Digital Signatures, RFID Systems, Financial Betting Platforms
- **Standards & Compliance:** **vLEI (GLEIF Ecosystem)**, **HL7 (v2.x, FHIR)**, with foundational knowledge of DICOM, ISO/TC 215, Health Information Exchange (HIE)
- **Domain Expertise:** Agriculture, Education, Bioinformatics, Finance, Health

EDUCATION

National University of Singapore - Bachelor of Science (B. Sc.) in Biological Sciences

JULY 1994 - JUNE 1996

- **Minor:** Molecular & Cell Biology
- Undergraduate Researcher in Marine Biology

PATENTS, AWARDS & RECOGNITION

Winner, Global vLEI Hackathon | GLEIF (Nov 2025)

- Awarded for an innovative solution leveraging verifiable Legal Entity Identifiers (vLEI) to reduce friction in MSME financing and enhance global trade digitalization
- <https://gleif.org/en/newsroom/press-releases/gleif-announces-the-global-vlei-hackathon-winners-driving-resilience-in-trade-and-supply-chains-and-easing-access-to-finance-for>

Patent: “Multiple Data Type Processing and Presentation Grid”

- Publication number: WO/2001/061432
- Publication date: 2001-08-23
- Invented a method for processing and presenting multiple data types within a unified grid.
- <https://patents.google.com/patent/WO2001061432A2/en>

Patent: “Dynamic Pricing Engine”

- Publication number: US 2003/0101146 A1
- Publication date: 2003-05-29
- A real-time dynamic pricing engine for e-commerce and m-commerce platforms
- <https://patents.google.com/patent/US20030101146A1/en>