

Chou Cheng Lei (Eli)

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Education

James Cook University, Brisbane, Australia

2015 – 2019

- Bachelor of Information Technology - Computing and Networking

Skills

- **Languages:** JavaScript, TypeScript, Solidity
- **Frontend:** React, Next.js, Vue.js, HTML/CSS, Tailwind CSS
- **Backend:** Node.js, Nest.js, MongoDB, PostgreSQL
- **Blockchain:** Web3.js, Ethers.js, Wagmi, Viem, Hardhat, Foundry
- **Tools & Infrastructure:** Git, Docker, AWS (CDK), Jest

Working Experience

Founding Fullstack Engineer, Aerix Protocol, Singapore

Mar.2025 – Present

- Led end-to-end development of a scalable financial web platform from 0-to-1, serving 8,500+ active users and processing \$1.8M+ in transactions during the initial launch.
- Developed Dijkstra-based routing algorithms incorporating order splitting across 15+ liquidity sources, enabling efficient multi-hop aggregation, minimizing slippage, and optimizing execution prices.
- Built a high-performance aggregation engine handling 70K+ transactions with 99.9% reliability, integrating 30+ external services and APIs.
- Developed middleware for transaction validation and cost estimation in Node.js, reducing failed operations by 25%+ through simulation-based checks.
- Built responsive trading interfaces using React, Next.js, and TypeScript, with WebSocket integration for real-time execution and transaction tracking.
- Engineered backend services with PostgreSQL clustering, Redis caching, and containerized deployment pipelines, achieving sub-100ms data processing latency.

Lead Software Engineer, zkLink Protocol, Singapore

Apr.2024 – Jan.2025

- Led cross-functional collaboration across 14+ engineers covering frontend, backend, and infrastructure, ensuring synchronized delivery of complex platform features.
- Directed development of a high-throughput trading platform from 0-to-1, scaling to \$4M+ in managed assets across multiple distributed environments.
- Designed and implemented a multi-asset vault system combining spot transactions, market making, and leveraged trading under a unified architecture with dynamic risk controls.
- Built automated optimization pipelines that integrated with external protocols to maximize yields and returns for end users.
- Delivered a production-ready derivatives trading engine with oracle-based pricing, low-latency execution, and automated liquidation/funding mechanisms.
- Developed responsive web interfaces in React and TypeScript for unified trading and portfolio management, coordinating delivery across three parallel development streams.
- Integrated external data sources and coordinated backend engine development to ensure reliable, manipulation-resistant transaction processing.
- Created a scalable GraphQL indexing and analytics infrastructure to support real-time portfolio tracking, user dashboards, and platform metrics.
- Implemented secure delegated signing features within the SDK, enabling cross-platform transactions through shareable links and improving developer adoption.

Blockchain Software Engineer, OpenEden, Singapore***Apr.2023 – Mar.2024***

- Built comprehensive DApp frontend supporting OpenEden protocol's growth to \$150M+ TVL, serving 130+ institutional clients across Binance Labs-backed tokenized US Treasury Bills platform.
- Developed cross-chain vault interfaces for Ethereum, Arbitrum, and XRP Ledger, enabling seamless interaction with Moody's "A"-rated TBILL tokens and automated yield distribution systems.
- Architected modular component library integrating Wagmi, Viem, Ethers.js, and Typechain for enterprise-grade KYC/AML workflows and institutional treasury management interfaces.
- Led frontend development for River Finance, implementing DFS automation with proxy account (DS-Proxy) interfaces for leverage vault management and automated rebalancing mechanisms.
- Implemented sophisticated FlashLoan integration and staking token incentive systems with comptroller-based point accumulation, contributing to institutional access for RWA-backed leveraged positions.

Blockchain Frontend Engineer, KONOMI Network & So-Col, Singapore
Apr.2022 – Apr.2023

- Built comprehensive P2P lending protocol frontend for KONOMI Network enabling user-controlled yield farming with custom pool creation, interest rate setting, and collateral management on Polkadot ecosystem.
- Developed cross-chain asset management interface integrating custom Konomi Oracle for accurate price feeds across BSC, Ethereum, and Polkadot networks supporting minority currency lending markets.
- Engineered real-time WebSocket and Server Side Event systems processing 10K+ concurrent users for live trading data, liquidation alerts, and governance proposal updates.
- Contributed to So-Col Web3 social platform development, implementing NFT-gated community features and creator monetization tools for \$4.5M DWF Labs-backed platform serving 300+ creators.
- Applied Agile methodologies using JIRA, Jenkins, and GitHub for continuous integration across both protocols, maintaining 95% test coverage with Jest and comprehensive Solidity unit testing.

Software Engineer, DBS Bank, Taipei, Taiwan***Mar.2021 – Mar.2022***

- Selected through competitive DBS Hack2Hire program, joining DBS Taiwan engineering team to develop enterprise-grade digital banking and credit card solutions serving millions of customers.
- Implemented critical hot-fixes and new features for credit card and lending platforms, collaborating with Singapore-based engineering teams on mission-critical financial services.
- Enhanced DBS Digital Taiwan application stability by reducing frequent crash incidents and improving overall responsiveness through targeted debugging and large-scale code refactoring.
- Built responsive React-based interfaces with TypeScript, Redux-Saga state management, and comprehensive Jest testing frameworks meeting financial industry compliance standards.
- Collaborated across Singapore-Taiwan engineering teams using Agile methodologies, JIRA workflow management, and Jenkins CI/CD pipelines for seamless cross-border development coordination.

Frontend Developer, Eatgether (Eatme Internet), Taipei, Taiwan ***Mar.2020 – Nov.2020***

- Developed and maintained Taiwan's largest social meetup platform serving 1M+ users, enabling face-to-face social connections through 10,000+ hosted gatherings with zero safety incidents.
- Built comprehensive admin dashboard for sales department optimizing advertisement implementations and essential platform controls, supporting 290% monthly revenue growth.
- Implemented real-time features using Vue.js, React, WebSocket, and SASS, integrating AWS Lambda and S3 for scalable cloud infrastructure supporting rapid user growth.
- Collaborated with backend teams on platform development during company's pre-Series A funding round, contributing to expansion plans targeting East Asia's largest meetup platform.

Certifications**DBS Bank SRE Advanced Practitioner Certification*****Oct.2021***

Site reliability engineering and production infrastructure management

DBS Bank Application Security Titan Bronze Level***Mar.2021***

Advanced application security practices and vulnerability assessment

Selected Projects

create-web3-turbo - Web3 Development Monorepo Template

Oct.2022

TypeScript, Next.js, Turborepo, Hardhat — github.com/memoriaXII/create-web3-turbo

- Architected production-ready Web3 monorepo template achieving 144+ GitHub stars and 23+ forks, serving as foundation for multiple DeFi projects.
- Built comprehensive development stack integrating Next.js 14, WAGMI hooks, RainbowKit, Hardhat, and Typechain with advanced CI/CD workflows.
- Designed modular architecture supporting smart contract development, frontend integration, and shared component libraries with Docker containerization.

SkyArk Chronicles Genesis NFT Marketplace - Blockchain Gaming Platform *Feb.2022 – Nov.2022*

React, TypeScript, Web3.js, Solidity — Binance Labs-backed, \$15M funding

- Contributed to Singapore's first AAA blockchain gaming studio backed by Binance Labs, developing DeFi protocol DApps for fantasy JRPG with interoperable NFTs and play-and-own mechanics.
- Built sophisticated GameFi interfaces utilizing Solidity smart contracts with comprehensive unit testing and SDK integration, supporting SkyEngine's blockchain-as-a-service platform.
- Implemented real-time WebSocket and Server-Side Event systems for multiplayer gaming features, NFT marketplace functionality, and efficient data communication across the SkyArk Chronicles trilogy.
- Developed frontend solutions using JavaScript, TypeScript, React, Redux-Toolkit, and Jest, integrating Web3.js and Hardhat for seamless Ethereum blockchain interactions.
- Applied Agile methodologies using JIRA, Jenkins, Git, and Docker for streamlined development processes, ensuring high-quality deliverables for this venture-backed gaming ecosystem.