

Yen-Chih Liao

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SUMMARY

Seasoned R&D Engineer with over four years of software-industry experience across cooperative software development, product research, and implementation. Proficient with Linux-based workflows; skilled in tracing, analyzing, and presenting open-source projects. Strong background in blockchain/Web3 engineering and backend automation. B.S. and M.S. in Computer Science (National Taiwan University). Seeking to contribute to a forward-thinking organization.

WORK EXPERIENCE

Web3 Engineer

XY Finance (Web3 team), Taipei, Taiwan

Mar 2024 – Dec 2025

- **Smart Contract Testing & Auditing:** Authored comprehensive unit tests for Ethereum smart contracts using Foundry; shrunk contract size by 20% and reduced gas cost by 5%; increased test coverage by 50%+.
- **Technical Support & Reliability:** Diagnosed and resolved rebuild errors in user environments using Foundry toolchain; proposed smart contract dryrun method that speeds up error detection by at least 20x.
- **Seamless Upgrades & Security:** Orchestrated contract upgrades to align with regulatory and business requirements; coordinated APIs, backend, and database changes achieving continuous availability; reduced later engineering effort by 7x and downtime by 10x.
- **Third-Party Integration:** Successfully integrated product with third-party smart contracts; 88.75% of users of the same transaction type now benefit from enhanced functionality.
- **Multi-Chain Support:** Broadened product support to L1 (Berachain), L2 (Scroll), and zk-sync L2 (Abstract) networks; introduced 2.1% traffic and expanded user access across multiple ecosystems.
- **EIP-7702 Frontend Service:** Built a modular wallet system in React/TypeScript supporting EIP-7702 authorization workflows, smart account creation, and multi-wallet compatibility (MetaMask, local keys) with ZeroDev integration.

R&D Software Engineer

Taisys (GameFi development team), Taipei, Taiwan

Nov 2021 – Jul 2023

- **Full-Stack Web3 Development:** Launched Solidity contracts with Hardhat; built demo DApps with React; customized and deployed open-source stacks (Omni/TokenBridge, ProjectOpenSea/seadrop, Gnosis/MultiSigWallet); built automated data pipelines on GKE with real-time notifications.

Contractor (R&D)

HTC DeepQ (ML/Healthcare division), New Taipei, Taiwan

Apr 2019 – May 2020

- Implemented a prototype of MedRec (Stanford academy paper) on a private blockchain in a team of five.

SKILLS

Programming	Solidity, Python, Go, C++, JavaScript, TypeScript, Shell Script
Backend	GraphQL, REST APIs, Node.js, MongoDB, Redis
Web3 Standards	Token Standards, ERC712, ERC4337, ERC4626, ERC7702, ERC7579, Ownable, AccessControl, CREATE2, CREATE3, Upgradeable, Permit, Permit2
Cloud	Google Cloud Platform (Cloud SQL, IAM, Secret Manager, GKE, Pub/Sub)
DevOps	Git, CircleCI pipelines, Docker, Kubernetes
Frontend	React, Vue.js, Quasar Framework, Next.js

EDUCATION

National Taiwan University Taipei, Taiwan

M.S., Networking and Multimedia Sep 2018 – Jan 2021

- Research focus: blockchain consensus algorithms for consortium chains.
- Publication: *View-base Federated Byzantine Agreement System for Environmental Blockchain* (BRAINS, Jul 2021).

B.S., Computer Science and Information Engineering Sep 2014 – Jun 2018

- Publications: *Applying Blockchain to an Automated Clearinghouse System* (TANET, Oct 2017); *Governance on the Drug Supply Chain via Gcoin Blockchain* (IJERPH, May 2018).

LANGUAGES

 Mandarin (native) | English (fluent) | Japanese (intermediate; JLPT N2)