

SUMMARY

Building software since 2019 in crypto and AI, across the full stack. Four years of that professionally: the ingestion and streaming layers behind on-chain market data, agent orchestration, developer SDKs, component libraries, and most recently post-quantum cryptography. Currently an MSc Blockchain student at NTU Singapore. Three IEEE conference papers on distributed messaging and video compression. Hackathons and side projects outside of work.

SKILLS

Languages	TypeScript, Rust, Java, SQL, Solidity, Python
Web & AI	NodeJS, ReactJS, NextJS, Remix, AI Agents, LLM orchestration
Blockchain	Solana, EVM, ZK Stack L3, ERC20/721/1155, Ed25519/ML-DSA, Event Decoding, Indexing, IPFS, Viem, Wagmi
Backend & Infra	PostgreSQL, Redis, Supabase, GraphQL, WebSockets, Apache Kafka, AWS (Lambda, Step Functions, SQS), Docker

EXPERIENCE

Infinia Technologies (IHC Group, UAE) - *Blockchain Software Consultant* April – July 2026

- Built a **post-quantum Solana fork**, replacing Ed25519 with ML-DSA-44 across the verification precompile, user payments, validator votes, gossip value propagation, and block shreds. Payments and votes finalize on a live self-hosted validator.
- Absorbed a **~40× larger signature** into a validator built for 32-byte keys: derived account addresses by hashing the public key, raised the packet ceiling to 8192 bytes, and carried it in a transaction envelope so ML-DSA runs beside Ed25519.
- Pinned the ML-DSA-44 implementation to the **NIST FIPS 204 known-answer vectors** and proved the Rust validator and the JavaScript wallet produce byte-identical keys and signatures, closing the migration's last unmitigated correctness risk.
- Built **Global Citizen's** donor, partner and leadership platform: campaigns, commitment review, deposits and withdrawals, on Privy embedded wallets with an HMAC-verified Sumsb webhook issuing an EAS attestation that gates donations on-chain.
- Deployed a **ZK Stack L3 rollup** with a custom ERC20 gas token for the Government of Kenya's e-Claims Platform.

Covalent (Silo Research & Development, Canada) - *Product & Engineering Consultant* June 2023 – December 2025

- Designed the **event ingestion and streaming architecture** behind Covalent's OHLVCV market price feeds; processed DEX swap events and exposed real-time streams via GraphQL subscriptions over WebSockets with ~250ms freshness.
- Led product and engineering for **SpeedRun**, a crypto-native collaborative 'vibe-coding' platform that scaled to 1,000+ active users, 700+ published projects, and 150+ token launches within the first month.
- Built Covalent's **AI Agent SDK**: a supervisor-routed multi-agent runtime where a planner decomposes a goal and a router delegates each step to a named agent, over composable LLM, tool and workflow primitives.
- Built Covalent's spam detection for tokens and addresses: a **16-signal SQL heuristic** classifying 10M+ contracts across 6 chains, surfaced as spam flags on every Foundational API balance response.
- Led Covalent's open-source **GoldRush suite**, the public developer surface for its APIs: a 13-protocol decoder, the Kit component library, React UI kits, a cross-chain block explorer, docs and an MCP server.

Hashmail (Hashlabs, India) - *Founding Engineer* July 2022 – June 2023

- Led engineering on the **wallet-native mail client**: nonce-signature sign-in over EVM and Solana wallets, multi-wallet accounts, auto-forwarding, and address resolution across ENS, Lens, .sol, and Unstoppable Domains.
- Designed the **SST-provisioned serverless backend** on AWS (Lambda, Step Functions, SES, SQS) over Supabase, behind four consumers: the mail app, the dapp console, an embeddable chat widget, and webhooks for Telegram and verification.
- Built the **dapp console** on Remix: dapp onboarding and team invites, widget configuration, a campaign composer with contact targeting and preview, and a support desk with ticket categories, priorities, and Discord private ticketing.

PROJECTS & HACKATHONS

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| Gantry - payment rail taking a printed QR from a person or x402 from an agent. 3 rd Place - NTU InnovateX | August 2026 |
| Claude Controller - drive Claude Code from a phone over a private tunnel | May 2026 |
| Trident - Solana allocator moving USDC between lending, perp spreads and basis trades on 30-second signals | March 2026 |
| Flux - on-chain-aware AI support agents. Best Use of Fluence Virtual Servers, 3 rd Place - ETHGlobal New Delhi | September 2025 |
| Placed in 11 of 13 hackathons entered, including <i>DAOscape</i> at ETHGlobal Prague | 2019 – 2026 |

EDUCATION

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| Master of Science in Blockchain (Nanyang Technological University, Singapore)
Graduate College - NTU Centre in Computational Technologies for Finance | August 2026 - July 2027 (expected) |
| Bachelor of Technology (SRM Institute of Science and Technology, Chennai, India)
Computer Science Engineering with Specialization in Cyber Security. First Class with Distinction, 9.26 CGPA. | June 2019 - July 2023 |