Raphael Chia

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29-year-old software engineer with 4+ years of experience building products from 0-1. Whether it is building end-to-end robust NextJS/NodeJS stacks or driving millions in daily transaction volume on a custom trading terminal, I live for high-stakes problem solving, elegant executions, and passion projects.

PROFESSIONAL EXPERIENCE

Tensorplex Labs **Singapore**
Software Engineer, Full Stack *May 2024–Present*

- Developed and shipped the frontend of **backprop.finance**, a Bittensor Alpha Trading Exchange that scaled 10x since inception, from **5–8M to 50–60M USD in weekly transaction volume**, reaching **36% of the network's volume**. Stack: Next.js, TailwindCSS, Node.js.
- Created end to end authentication flow with Web3 wallets (Metamask, Rabby, Talisman, Polkadot etc), with reference to Ethereum (EIP4361) standards, thus allowing secure custom wallet profiles, portfolio tracking and more.
- Integrated frontend with ERC20 smart contracts and substrate networks to facilitate staking, liquidity, and portfolio management, bringing a consistent **300-400 daily unique users** that actively trades on our site
- Built referral and leaderboard system for a staking dApp, with **800+ unique wallet participants**, enhancing user engagement on discord **(21k members)** and retention incentives.
- Designed and deployed a Google Analytics–driven feature usage tracking pipeline that identified 2 underused features **(0.1% active user engagement)**. Insights from weekly dashboard reviews has enabled data-backed re-prioritization while guiding UX redesigns that increased high-impact feature adoption with the best feature achieving up to **97% usage**.
- Optimized backprop.finance frontend, using React hooks (startTransition, useDeferredValue, etc.) to prevent client blocking on our input intensive page with high amount of data displayed, React profiling tools to sieve out unnecessary re-renders, and flattening React component structures. Led to increased customer satisfaction.
- Built a newsletter system powered by DeepSeek-V3, served through Python's FastAPI, summarizing the latest X (Twitter) posts weekly and generating an engaging title for the curated news. Saved **2–4h/week** in manual curation and achieved **23% user engagement** via hover tracking and visibility.
- Created an internal web-based LLM data labeling platform (FastAPI + NextJS) that streamlined prompt/output review through optimizing screen layout and keyboard navigation, increasing review speed from **>2minute** per task to under **30 seconds** per task.
- Reduced backend API latency for trading metrics from **15s to <0.5s** via a combination of in-memory caching (Redis), chunked processing, and response streamlining.

Telepathy Labs **Singapore**
DevOps Engineer *November 2022–May 2024*

- Analysed, planned, and executed the restructure of the CICD pipeline to ensure less ambiguity on versioning and docker images. Improved the CICD process to allow developing and testing to be done in parallel.
- Automated the keeping track of service owner's branch, versions, and release dates, resulting in developers being able to stay focused on tasks at hand.

NCS **Singapore**
Software Developer *January 2022–November 2022*

- Prototyped and iterated a Low Code application to digitalize the onboarding and entry process into the Organization's physical office lobby.
- Developed a document overdue module within an intelligent Document Processing application for Singapore's Attorney General Chamber, as part of solving and reducing human errors from missing important deadlines.

PROFICIENCY

- **Framework/Tools**: NextJS, FastAPI, PostgreSQL, Redis, Prisma, AWS, Docker
- **Languages/Markup**: Javascript, Typescript, SQL, Python, HTML, CSS, Bash
- **Libraries** React, TailwindCSS, Ethers.js, Polkadot.js, react-charts, Recharts

EDUCATION

SINGAPORE INSTITUTE OF TECHNOLOGY **Singapore**
Bachelor of Engineering, Software Engineering (Second-Upper Class) *September 2018-December 2021*

- **Co-Curricular Activities** Scuba Diving, Inline-skating, Student Management Committee (finance role)