Brian Kwong

SENIOR SOFTWARE ENGINEER

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Summary

Senior Full Stack Developer with 5+ years of experience. Building decentralized applications in the Web3 security space, specializing in developing scalable front-end interfaces using React and TypeScript, robust back-end systems with Node.js, and secure smart contracts with Solidity.

Skills

Programming Languages TypeScript, JavaScript, Node.js, Solidity, Golang, Python, Java

Tools and Frameworks React, GraphQL, The Graph, Next.js, Nest.js, Express.js, Hardhat, PostgreSQL, MySQL, MongoDB, AWS, Docker, CircleCI

Experience

OpenZeppelin

SENIOR SOFTWARE DEVELOPER *Nov. 2022 - Present*

- Developed full-stack features on **Forta Protocol**, a decentralized security application, using **React**, **Node.js**, **TypeScript**, **Solidity**, and **The Graph**, including Delegated Staking, Data Fees, Generic Bots, and Fort Vault Staking, resulting in a 100% increase in users and 350% revenue growth.
- Created and deployed custom subgraphs with **The Graph** to efficiently index and query Ethereum smart contract data, enabling real-time monitoring and analysis. Designed **GraphQL APIs** to expose OpenSearch capabilities for flexible data querying and retrieval.
- Authored and tested **Solidity smart contracts** using the **Hardhat** development environment, leveraging best practices for secure, gas-optimized, and upgradable contract design.
- Led the development of WalletConnect support and the integration of **WalletConnect v2**, led to about 30% of user increase.
- Collaborated with product side to optimize user experience by resolving over 50 front-end bugs, implementing responsive UI enhancements, refactoring legacy code, and designing accessible **UI component libraries**, resulting in up to 25% reduction in complaints and 18% in mobile engagement.
- Led the team to design **front-end unit tests with Jest**, conducted code reviews and enforced best practices in software design patterns and **test-driven development** across the project, minimized the potential errors and enhanced the stableness of the website by 40%.

Crypto.com

SOFTWARE DEVELOPER *Jul. 2021 - Nov. 2022*

- Developed full-stack features for the **Crypto.com NFT marketplace** with **over 1 million users** using **React**, **Node.js (Nest.js)**, **TypeScript**, **GraphQL**, and **PostgreSQL**, including **cross-chain support** for Ethereum and Polygon network NFTs and user-generated NFT creation, resulting in a 500% increase in users and 1000% revenue growth.
- **Optimized queries** and conducted **load tests**, improving website query speed by 350%.
- Improved existing features of the website and internal admin panel, leading to a 300% lift in sales.
- Performed **on-call duties** to support daily platform operations, including processing airdrops, investigating urgent issues, and deploying feature releases and hotfixes, reducing overall operation time by 120%.

Mediconcen

SOFTWARE ENGINEER *Aug. 2020 - Jun. 2021*

- Developed and optimized front-end applications using **React** and **React Native** with **TypeScript** for the clinic website and content management system, facilitating transactions between 10 insurers and over 600 clinics, resulting in a 160% improvement in processing time.
- Created a **React component library** to generate inpatient forms using designed JSON templates, accelerating development speed by 180%.
- Constructed and optimized **Express.js endpoints**, designed databases, and optimized **MySQL queries**, resulting in a 210% increase in average processing speed.
- Established deployment procedures using **AWS** and created documentation for system design, development, and deployment processes, leading to a 30% productivity boost.

Projects

Token Swap

REACT, TYPESCRIPT, UNISWAP PROTOCOL *July. 2024*

- A React application for **swapping ETH and USDC tokens** on the **Ethereum Sepolia testnet** and **Ethereum mainnet** using **Uniswap V2 protocol**.
- This project demonstrates integration with Web3 wallets, real-time price updates, and handling of token swaps.

Hyperlane VS Code

REACT, TYPESCRIPT *Jun. 2023*

- Won the **Best Developer Tool Award** from 1 of the 3 awards provided by **Hyperlane** in **ETHGlobal Waterloo 2023**.
- Developed a VS Code extension to **deploy Hyperlane smart contracts for permissionless interoperability** and show details of the chains.

Education

The University of Hong Kong

BACHELOR OF ENGINEERING IN COMPUTER SCIENCE *Class of 2020*

- Executive Committee Member of the Computer Science Association, ENS, HKUSU session 2016-2017