Zhiwen Huang

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Summary

With over 8 years of development experience, I specialize in blockchain and full stack development, including building cryptocurrency exchanges, NFT marketplaces, decentralized applications, and other software solutions. I have expertise in Angular, React, Solidity smart contracts, ERC-20 tokens, ERC-721 tokens, API development, and MongoDB. My personal projects include a decentralized exchange, React Native apps, decentralized file storage platforms, and an Ethereum framework. I'm passionate about leveraging cutting-edge technologies to create scalable, efficient solutions in both blockchain and traditional software development.

Work Experience

Freelance

Jun 2024 - Nov 2024

Built decentralized applications

- Developed the Solidity smart contract for a decentralized exchange using Truffle to facilitate decentralized token trading, optimizing gas fees to ensure cost-efficiency and a seamless user experience.
- Built a dynamic front-end with React for a decentralized exchange that pulls real-time data from the blockchain, enabling users to view, search for, and cancel trades, with an intuitive and responsive interface.
- Integrated wallet support for a decentralized exchange using Wagmi, connecting to Metamask and WalletConnect, enhancing the login process with a user-friendly wallet connection feature that minimized friction for users.

Synapse | Software Engineer III

Mar 2022 - Jun 2022

Enabled companies to build and launch best-in-class financial products

- Built and deployed Ethereum nodes on AWS for company financial applications, enabling seamless integration with the Ethereum blockchain for secure and efficient transactions.
- Developed a multi-chain custodial wallet supporting Ethereum, Solana, and Polygon, empowering users to trade seamlessly across these platforms.
- Created a Terraform script to automate the deployment and management of a Polygon node on AWS, improving infrastructure scalability and reliability.
- Designed and implemented detailed diagrams to outline the trade functionality of an Ethereum-based financial application, enhancing system transparency and supporting business decision-making.

Icered | Blockchain Engineer

Nov 2021 - Jan 2022

Developed a social metaverse app integrated with blockchain technology.

- Developed a custom ERC-20 token with admin-controlled minting functionality, enabling cost-efficient token minting based on specific conditions met within a mobile application.
- Designed and implemented Solidity smart contracts and backend services for an NFT exchange platform, facilitating user message signing for NFT listings and supporting lazy minting for efficient transaction handling.
- Integrated the NFT marketplace backend with the blockchain, ensuring smooth interaction with Ethereum and storing blockchain transaction data and signed messages in MongoDB for improved reliability and tracking.
- Conducted research on building a centralized crypto exchange supporting Bitcoin, Ethereum, ERC-20 tokens, and Icered tokens, contributing to strategic planning and technical architecture.
- Utilized Docker to configure and maintain consistent development and testing environments, streamlining workflows and ensuring reliable deployment.

Darwins | Blockchain Engineer

Jun 2021 - Nov 2021

Built Web3 applications connecting users to decentralized platforms.

- Developed an ERC-721 smart contract for user rewards, incorporating a lazy minting feature to enable token redemption at a later time, optimizing token distribution for users.
- Led the transition from layer-1 to layer-2 smart contract architecture, implementing batch transaction solutions to enhance scalability and reduce transaction costs.

- Designed and implemented front-end and back-end features for minting and transferring ERC-721 tokens in a decentralized finance (DeFi) application, ensuring seamless integration with blockchain systems.
- Built decentralized and centralized ERC-721 contracts, including buy-sell, auction, and offer contracts, to provide flexible and efficient trading experiences for users.
- Developed Angular 2 frontend components and backend services using TypeScript and Hapi, creating robust API routes for seamless communication between the front-end and blockchain.
- Integrated MongoDB to gather and store data from blockchain interactions, ensuring effective data management for server updates and transaction tracking.
- Created a smart contract for a generative art NFT collection consisting of 7,000 unique images, known as Cultiez, which are currently available for purchase on OpenSea. Explore the collection at cultiez.com.

Halo Platform | Backend Developer

May 2018 - Aug 2018

Contributed to a robust cryptocurrency management platform.

- Researched and implemented the 0x Protocol to develop a decentralized exchange, enhancing the platform's ability to facilitate peer-to-peer trading of cryptocurrencies.
- Contributed to the development of a cryptocurrency exchange using Node.js, enabling seamless trading of Bitcoin, Ethereum, and Halo tokens with an emphasis on performance and security.
- Created comprehensive unit and integration tests with Mocha and Chai, ensuring the reliability and stability of the exchange's core functions and processes.
- Led application updates and feature enhancements within an Agile and Scrum environment, driving fast-paced software iterations and continuous improvement.

Skills

Programming Languages: JavaScript, TypeScript, Python, Ruby, C++, Go, Rust

Frameworks & Libraries: React, Angular, Angular 2, React Native, Django, Express.js, Node.js, Redux, jQuery, Hapi, Tailwind CSS, Next.js, GraphQL

Blockchain Technologies: Ethereum, Solidity, Truffle, Hardhat, web3.js, ethers.js, Wagmi, IPFS, Solana, Polygon, Layer-2 solutions

Development Tools: AWS, Docker, Electron, Webpack, Mocha, Chai, Gulp, Jest, Terraform, TDD (Test-Driven Development)

Databases: MongoDB, PostgreSQL

Web Development: HTML, CSS, SASS, WebSockets, WebRTC

Other Tools: Git, Linux, Agile/Scrum methodologies, message signing, custodial wallet management

Design & Visualization: d3.js

Education

Codesmith   *Los Angeles, CA*

Software Engineering Immersive Program   *Graduated: Sep 2016*

Intensive program focused on advanced software engineering concepts and full-stack JavaScript development, emphasizing hands-on projects and industry best practices.

University of Florida   *Gainesville, FL*

Bachelor of Science in Mechanical Engineering   *Graduated: Dec 2014*

Relevant Coursework: C++ Programming, Computer Programming for Engineers: MATLAB

Completed coursework in engineering principles, problem-solving, and applied mathematics. Developed a strong analytical foundation that supports technical problem-solving in software and blockchain development.