Zhiwen Huang

(562) 213-7654 | zhiwen555@gmail.com | linkedin.com/in/zhiwenhuang0
github.com/zhiwenh | zhiwenh.com | *Los Angeles, CA*

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 applications. I have expertise in Angular, React, Solidity smart contracts, ERC-20 tokens, and API development. 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

Synapse | **Software Engineer III**

Mar 2022 - Jun 2022

Enable 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.

Florida Biologix | Lab Technician

Mar 2015 - Aug 2015

Contributed to the upstream manufacturing of viral vectors in a cGMP environment.

- Played a key role in upstream manufacturing of viral vectors for clinical trials, managing processes with up to 400L of suspension cell cultures within cGMP-compliant cleanroom environments.
- Led the integration of external airflow meters into cleanroom bioreactors, ensuring enhanced process verification and optimization during critical production runs.
- Developed and refined standard operating procedures (SOPs) and production batch records for new processes and equipment, driving operational efficiency and compliance with regulatory standards.

Projects

Dex

2024

A decentralized exchange for Ethereum ERC-20 tokens.

- Developed a Solidity smart contract 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 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 using Wagmi, connecting to Metamask and WalletConnect, enhancing the login process with a user-friendly wallet connection feature that minimized friction for users.
- Designed and implemented an efficient trade interface using Tailwind CSS, ensuring users could easily track, search, and complete trades, with a clean and visually appealing layout.
- Developed a backend with Express.js to implement a contact form, allowing users to get in touch seamlessly via the front-end interface.

Delib

2016 - 2021

An Ethereum framework designed to streamline DApp and smart contract development.

- Built a flexible Ethereum framework using Node.js, enabling developers to easily interact with smart contracts via the command line and streamline decentralized app development.
- Implemented automatic Ethereum gas estimation for transactions by encoding constructor parameters during contract deployment, optimizing the framework for efficient method calls and minimizing costs.
- Created comprehensive documentation for the framework, including detailed API references, method libraries, installation guides, and usage examples to support developers in utilizing and configuring the framework effectively.

League of Legends Cooldown Tracker

2019

An IOS and Android mobile app for tracking League of Legends in-game cooldowns

- Developed a React Native application that efficiently manage state changes and prop transfers, supporting over 30 customizable timers per session and 100+ game champions.
- Designed a user-friendly interface (UI) that allows players to easily adjust timer actions, ability levels, and cooldowns, enhancing gameplay efficiency and customization.
- Built a backend using Express.js and Heroku to handle automatic League of Legends version updates, ensuring up-to-date game data and API calls with enhanced security for API key management.

Google Music Visualizer

2016 - 2019

A Chrome extension that visualizes audio frequencies on Google Play Music.

- Converted an audio stream into the frequency domain using JavaScript, the Web Audio API, and Fast Fourier Transforms (FFT) to create a dynamic, real-time audio visualizer.
- Designed visually engaging color themes for the visualizer bars using D3.js, enhancing the user experience and making the visual display more interactive and aesthetically appealing.
- Iterated based on feedback from over 7,000 users, adding new features like local storage for user settings and implementing bug fixes in response to changes in the Google Play Music website.

Devchain

2016 - 2018

An Ethereum private blockchain creation and development tool.

- Developed a command-line tool to simplify the setup and configuration of a genesis file when initializing private Ethereum blockchains using Geth, streamlining the process for developers.
- Created comprehensive documentation outlining how to use the devchain tool, connect it with other blockchains, and leverage various Geth methods for blockchain interaction and management.

Destore

2016

A decentralized and secure file storage and hosting platform.

- Architected a decentralized peer-to-peer file storage platform using Node.js, built on the Ethereum blockchain, that integrates trustless cryptocurrency exchanges for seamless transactions between users.
- Developed Solidity smart contracts to manage distributed databases, file location routing, and secure payments between platform users, ensuring efficient and transparent transactions.
- Integrated IPFS for decentralized file storage, allowing users to upload and store files securely while recording IPFS hashes on the blockchain for easy retrieval.
- Leveraged Node.js to build functionality enabling users to save and share files from their local systems, enhancing accessibility and collaboration within the platform.
- Created a desktop application with Electron, enabling users to interact with the blockchain and host files securely from their computers, providing a seamless experience for file sharing and hosting.

Skills

Programming Languages: JavaScript, TypeScript, Python, Ruby

Frameworks & Libraries: React, Angular, React Native, Django, Express.js, Node.js, Redux, jQuery, Hapi, Next.js, Tailwind CSS, D3.js

Blockchain Technologies: Ethereum, Solidity, Truffle, Hardhat, web3.js, ethers.js, Wagmi, IPFS

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

Databases: MongoDB, PostgreSQL

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

Other Tools: Git, Linux, Agile/Scrum methodologies

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*
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.