Zhiwen Huang

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Summary

I am a software engineer, blockchain engineer, and full stack developer with more than 4 years of development experience. I have worked in the blockchain role at 4 companies and my experience ranges from a decentralized finance application, creating a NFT marketplace, creating ERC20 tokens, creating ERC721 smart contracts, and more. I also did front-end and back-end work at the companies I worked at. With my personal project experience my experience ranges from a decentralized exchange, a decentralized file storage platform, an Ethereum framework, a React Native application, and more.

Work Experience

Synapse | **Software Engineer III** | *Financial platform*   *Mar 2022- Jun 2022*
- Created Ethereum nodes on AWS for company financial applications that allowed users to connect to Ethereum to make transactions.
- Developed an Ethereum custodial wallet for Ethereum, Solana, and Polygon that allowed users to make trades on those platforms.
- Worked on a terraform script for a Polygon node on AWS.
- Implemented diagrams to list the trade functionality of an Ethereum application that allowed financial applications of Ethereum.

Icered | **Blockchain Engineer** | *Social app metaverse that incorporates blockchains*   *Nov 2021 - Jan 2022*
- Developed an ERC20 token that only allows the use of an admin signature to mint tokens to allow tokens to be minted cheaply when certain requirements were met on the mobile application.
- Created the Solidity smart contracts and backend for a NFT exchange that had users sign messages to list their NFTs and that allowed lazy minting.
- Researched the creation of a centralized crypto exchange for Bitcoin, Ethereum, Ethereum ERC20 tokens, and Icered tokens and wrote an article about it that explained the necessary steps to create it.
- Used Docker to set up the environment to be developed and tested and added to the environment file for the application to be configured better.

Darwins | **Blockchain Engineer** | *Darwins builds applications connecting people to Web3*   *Jun 2021 - Nov 2021*
- Created an ERC721 Solidity smart contract implementation for user rewards with a method to lazy mint the tokens to be redeemed at a later date.
- Worked on a way to transition a layer-1 smart contract system into a layer-2 by implementing ways for the the main smart contract to send batch transactions to the layer-2.
- Developed the front-end and back-end for the features of minting and transferring ERC721 tokens in a decentralized finance application
- Developed a decentralized ERC721 buy sell smart contract, auction smart contract, and offer smart contract and also developed a centralized version of those contracts.
- Worked on Angular 2 frontend components and also worked on a backend with Typescript that used Hapi to create API routes for the frontend to call.
- Created the smart contract for a generative art NFT collection with 7000 unique images with images currently sold on OpenSea today. The generative NFT collection can be viewed at cultiez.com.

Halo Platform | **Back-end Developer** | *Platform for cryptocurrency management and apps*   *May 2018 - Aug 2018*
- Researched the 0x Protocol to create a decentralized exchange.
- Helped with a cryptocurrency exchange using Node.js that traded Bitcoin, Ethereum, and Halo.
- Created unit and integration tests using Mocha Chai for all the methods and functions in a cryptocurrency exchange.
- Performed application updates with an Agile and Scrum methodology for fast software iterations.
- Worked on their blockchain and made small improvements to it and also researched more of how it should operate for it to perform faster.

Florida Biologix | **Lab Technician** | *Creates complex biological products*   *Mar 2015 – Aug 2015*
- Involved in the upstream manufacturing of viral vectors for use in clinical trials using up to 400L of suspension cells in the cleanrooms of a cGMP facility.
- Organized and implemented the addition of external air flow meters to the company's cleanroom bioreactors for process verification in the production runs.
- Wrote and edited standard operating procedures and production batch records for new processes and equipment.

Projects

Dex | *A decentralized exchange for Ethereum ERC-20 tokens* *2024*
- Developed a smart contract that allows users to trade tokens in a decentralized manner and made the smart contract as cheap to use to optimize gas fees for users.
- Developed the front-end using React that pulls data from the blockchain and that displays trades, allows users to make trades, search for trades, and also to cancel trades.
- Used Wagmi to connect with wallets such as Metamask and WalletConnect and made it as efficient as possible for users to sign into their wallet by having the wallet connect at the corner of the page and creating a popup to login.
- Found the best way to show your trades, searched for trades, and completed trades to users and also used Tailwind CSS to style the show of trades.
- Created a server using Express.js to allow users to use a contact form in the front-end to contact me.

Delib | *Ethereum framework for DApps and smart contract management* *2016 - 2021*
- Constructed an Ethereum framework that allows developers flexibility when developing decentralized apps and to interact with smart contracts via the command line.
- Executed automatic Ethereum transaction gas estimates by encoding constructor parameters in contract deployment and creating custom contract instances for method calls.
- Created documentation that explains everything in the framework from the API reference, the library of all methods available in the framework, showed examples of how to use the framework, and also showed examples of how to configure and install the framework.

League of Legends Cooldown Tracker | *IOS/Android app that tracks timers in League of Legends* *2019*
- Utilized React Native to effectively manage the state changes and prop transfer needed for configuring the options of over 30 timers per session and for more than 100 game champions.
- Developed a UI that allows users to perform easy timer actions and to adjust abilities levels and cooldowns.
- Created a backend using Express.js and Heroku for automatic League of Legends version updates and API calls for API key security.

Google Music Visualizer | *Chrome extension - Audio visualizer for Google Play Music* *2016 - 2019*
- Converted an audio stream into frequency domain by using the Web Audio API and Fast Fourier transforms.
- Made visually pleasing color themes for the visualizer bars by using d3.js.
- Responded to the user feedback of more than 7000 users by adding in new features such as local storage of settings and performed bug fixes resulting from Google Play Music website changes.

Devchain | *Ethereum private blockchain creator and development geth node* *2016 - 2018*
- Developed a command tool that abstracts away the setup needed to configure and link up a genesis file when initializing private Ethereum blockchains with geth.
- Created documentation of how to use devchain from the usage, how to connect with other blockchains, and also the possible methods you can use in geth after you start up devchain.

Destore | *Secure decentralized file storage and hosting platform* *2016*
- Architected using Node.js a decentralized, Ethereum blockchain based, peer to peer file storage platform that included trustless cryptocurrency exchange between its users.
- Created Solidity smart contracts that were used for distributed databases, handling file location routing, and payment among users.
- Used IPFS to allow file storage between users and saved the IPFS hashes onto the blockchain for users to retrieve in order to host their files.
- Used node.js to allow users to save files on their computers for other people.
- Utilized Electron to create the application that users would be using on their computer in order to save files for other people to host and used Electron to interact with the blockchain.

Technical Skills

Strong: JavaScript, Node.js, React, React Native, Express, jQuery, Angular, Angular 2, Python, Blockchain, Ethereum, Solidity, web3.js, ethers.js, IPFS, MongoDB, Gulp, TDD, HTML, CSS, SASS, Git, d3.js, Wagmi
Experienced: Ruby, Django, Redux, D3, PostgreSQL, WebSockets, WebRTC, Electron, Webpack, Mocha, Linux, Hapi, Next.js, Tailwind CSS

Education

Codesmith *Los Angeles, CA*
Software Engineering Immersive Program *September 2016*
Codesmith teaches you software engineering and full stack Javascript development

University of Florida *Gainesville, FL*
Bachelor of Science in Mechanical Engineering *December 2014*