Robert Wang

**SUMMARY**

Highly experienced and skilled Blockchain Engineer with over 7 years of software development and 4 years of dedicated blockchain experience. Possessing a robust background in crypto ecosystems, adept in smart contract and Web3 technologies. Proficient in Solidity programming language and well-versed in blockchain protocols and consensus mechanisms. Demonstrating expertise in developing top-notch and secure smart contracts utilizing advanced techniques such as Merkle Tree Data Storage. Committed to delivering scalable and ironclad blockchain solutions. Adept team player with a proven track record of consistently delivering projects on time and within budget.

**SKILLS SUMMARY**

* Crafted smart contracts and decentralized applications (DAPPs) across various EVM Blockchain platforms including Ethereum, Binance Smart Chain, Polygon, and Blast.
* Proficient in Web3 technologies and frameworks such as Web3.js, Ethers.js, and interfacing with decentralized networks and protocols.
* Integrated Frontend and Backend with the blockchain ecosystem using modern wallet connect frameworks such as RainbowKit, Wagmi, Viem, and useOnboard.
* Experienced in project development within several crypto ecosystems such as DeFi, P2E, NFT, and DAO.
* Well-versed in EVM protocols and standards such as ERC-20, ERC-721, ERC-1155, and ERC-4626.
* Leveraged IPFS for decentralized data storage and utilization within decentralized ecosystems.
* Extensive background in smart contract testing, gas-price estimation using Hardhat and Foundry.
* Developed and maintained web-based applications and websites for blockchain and decentralized technologies using frameworks like React.js and Next.js.
* Developed and deployed EVM smart contracts using frameworks such as Truffle, Hardhat, and Remix.
* Proficient in Javascript frameworks such as Node.js, Express.js, React.js, and Next.js.
* Implemented unit testing for web-based applications and websites using storybook.
* Managed the state of web applications and websites using state management tools such as Redux and Jotai.
* Designed and developed project architecture using Draw.io and UML.
* Experienced in Agile development processes, architecture design, software implementation, ensuring efficient and collaborative development for blockchain solutions using Jira and Github.

**EDUCATION**

**Bachelor’s Degree in Computer Science** 2013 - 2017

Singapore Institution of Technology • Singapore, Singapore

**PROFESSIONAL EXPERIENCE**

**Factory (Hybrid, Contract) (Singapore, Singapore)**

Blockchain FullStack Developer Jul 2023 - Apr 2024

* Interfaced with client stakeholders to comprehensively gather and define requirements for the work product, ensuring alignment with project objectives and client expectations.
* Conducted in-depth research on the latest technological advancements utilizing the ERC404 protocol.
* Developed the comprehensive data structure for the project, encompassing Blueprint, Product, ERC20, ERC721, and ERC1155 tokens to optimize the entire project workflow.
* Crafted the entire smart contract workflow and established the foundational codebase for its implementation.
* Engineered the factory contract to facilitate the deployment of child smart contracts and oversee the project's data structure and workflow.
* Created the Blueprint smart contract to enable the creation, minting, and burning of assets based on the ERC1155 token protocol.
* Established the Custody smart contract to securely store the component tokens utilized in project development.
* Developed the Product smart contract to provide users with a direct interface for utilizing our product.
* Orchestrated the creation of the project's frontend, meticulously aligning it with component tokens and pages utilizing React.js to ensure a seamless user interface.
* Executed comprehensive unit testing across all pages using Storybook, resulting in a notable 15% reduction in development time by proactively addressing and rectifying bugs.
* Implemented the robust jotai state management tool to streamline and optimize the project's state management, yielding a significant 10% acceleration in the overall development process.
* Architected intricate data structures tailored for Web3 development to fortify the project's foundation.
* Engineered the Web3 infrastructure to seamlessly integrate the on-chain program with the frontend, leveraging cutting-edge technologies such as ethers.js, web3.js, and wagmi.
* Deployed WalletConnect using the Rainbowkit to furnish a secure and user-friendly wallet connection, inclusive of WalletConnect v2, ensuring a seamless and protected user experience.
* Meticulously crafted comprehensive smart contract documentation to uphold the project's integrity and facilitate ongoing enhancements, utilizing Microsoft Office and Jira for meticulous tracking and management.
* Conducted rigorous testing of the developed smart contracts using Hardhat and executed on-chain tests on the Sepolia testnet, adeptly resolving issues to guarantee the security and efficiency of the smart contracts.
* Collaborated closely with a team of 2 frontend and Web3 developers to collectively build the entire project, fostering a cohesive and synergistic development environment.
* Performed meticulous function and UI testing on the frontend to validate accuracy, security, and efficiency, ensuring a robust and reliable user experience.
* Utilized Jira for task management and tracking project progress in the Smart contract, Web3, and Frontend development environment.
* Offered consistent support to the Operations team, actively participating in deployment and troubleshooting of production issues to maintain operational efficiency.
* Employed Slack as a platform for reporting results, addressing daily work challenges, and ensuring alignment with the project's ongoing objectives.

**Environment:** Solidity, Smart Contract, ERC20, ERC721, ERC1155, ERC404, TypeScript, React.js, Node.js, HTML5, CSS, VS Code, TailwindCSS, Unit Test, GraphQL, Git, MongoDB, Scrum, Agile, Jira, Jotai, Storybook

**Kerluke Team (Remote, Part-Time)**   **(Germany, Frankfurt)**

Architecture Designer, Smart Contract Developer Nov 2022 – Jul 2023

**Responsibilities**

* Conducted exhaustive research on existing crypto raffle games of company on Solana and performed a detailed analysis of the project's specific requirements and objectives
* Scrutinized and compared at least 3 blockchain platforms to identify the most suitable option based on stringent criteria such as transaction speed, cost, and community support.
* Defined the tokenomics model and established a robust economic system for the raffle game, including at least 3 token utility (Governance token, NFT, ERC20) features and a staking mechanism.
* Integrate decentralized oracles like Chainlink VRF to securely bring external data into the blockchain, ensuring the integrity of random number generation for fair raffle outcomes.
* Collaborated with 1 UX/UI designer and 2 frontend developers to create an intuitive user interface, ensuring a seamless experience for users interacting with the crypto raffle game.
* Devised mechanisms for community engagement, such as governance tokens and voting systems, to foster an active and empowered user community.
* Planed the deployment process for the blockchain architecture and smart contracts, and establish a maintenance plan for ongoing updates and improvements.
* Managed projects using Git, Jira, and Confluence, while spearheading the comprehensive project design utilizing Draw.io so that ensuring seamless project management and streamlined collaboration, resulting in successful project outcomes.
* Engineered a secure Airdrop smart contract with robust security measures, leveraging the power of Merkle tree technology to ensure the utmost protection and integrity.
* Developed a smart contract for managing tickets, which includes the functionality for selling free tickets and enabling bundled purchases for participating in the raffle game.
* Crafted a robust smart contract for token management and community profit, incorporating advanced tokenomics to propel sustainable growth and value creation within the community.
* Drafted the factory contract for creating a new raffle game contract and have defined the individual raffle game contracts to facilitate the creation of new raffle games
* Collaborated with clients and stakeholders to gather requirements for Web3 and game platform projects.
* Developed robust test scripts using Hardhat to fortify the security and efficiency of your contract, while dramatically accelerating the pace of development.
* Executed the deployment of the smart contract on the testnet, followed by rigorous live testing utilizing the developed MVP UI and Web3 integration.

**Environment:** Solidity, Hardhat, Typescript, Polygon, Blockchain, Web3, Cronjob, Merkle Tree, Draw.io, UML, Github, Jira, Kanban, Backlog

**Mentalmatics (Onsite, Contract)** **(Singapore, Singapore)**

Full Stack Developer Feb 2022 - Nov 2022

* Conducted a thorough analysis of the necessary information for the ICO, covering the project's purpose, features, and strategies.
* Designed the architecture and data structures of the smart contract, and outlined the four essential steps for the ICO platform: Seed Sale, Strategic Sale, Private Sale, and Public Sale.
* Specified the required features of the Presale contract, including the vesting function, such as TGE (Token Generation Event) and monthly released amounts.
* Developed the token staking function, including the determination of the Annual Percentage Rate (APR) and other pertinent features.
* Created Presale smart contracts, which included the implementation of the Vesting function to safeguard against token sale prior to marketing efforts.
* Conducted rigorous unit testing of the smart contract using the Hardhat framework and Typescript test script to ensure its robustness and reliability.
* Deployed the smart contract on the Sepolia and BSC testnets and meticulously tested it using the ethers.js and web3.js test scripts to guarantee optimal security and efficiency.
* Utilized the MyEtherWallet platform and Remix for the deployment of the smart contracts, adhering to industry best practices and ensuring a seamless process.
* Regularly updated the smart contracts through daily meetings with the execution team and clients, consistently implementing the best coding style and resolving any issues promptly to maintain high quality and client satisfaction.
* Led the design and development of the frontend user interface for the ICO project, leveraging React iframe and Wix technologies.
* Through strategic implementation, significantly boosted the site's SEO performance and enhanced its loading speed by an impressive 15% compared to the original setup.
* Crafted three critical pages dedicated to Token sale, Vesting, Claiming, and Staking functionalities, ensuring a seamless user experience.
* Utilizing TailwindCSS, designed a user-friendly and visually appealing interface that sets a new standard for accessibility and clarity across all project pages.
* Leveraged the React iframe to seamlessly integrate the Wix site with Web3, resulting in a remarkable 20% acceleration in development speed to enhance not only the security and efficiency of implementing the Web3 component but also facilitated a streamlined development process.
* Additionally, implemented an advanced wallet connect functionality using RainbowKit and Wagmi to enable support for various wallets, including the Wallet Connect v2.
* To ensure the robustness and reliability of the Web3 component, I rigorously tested it in both test and mainnet environments for approximately a month, collaborating closely with the execution team.
* Demonstrated active engagement with GitHub, leveraging its robust functionalities for comprehensive code management, including regular updates, meticulous code reviews, rigorous testing procedures, and seamless deployment processes.
* By leveraging Vercel's powerful platform, conducted thorough testing of multiple project versions, ensuring the seamless integration of new features and updates while maintaining the stability and performance of the application.

**Environment:** Solidity, Smart Contract, ERC20, ICO, Staking, Remix, MyEtherWallet, TypeScript, Next.js, Wix, VS Code, TailwindCSS, Unit Test, GraphQL, Git, Scrum, React iframe. RainbowKit, Wagmi, Viem, Sepolia, BSC Testnet

**PayrLink (Remote, Contract)** **(Singapore, Singapore)**

EVM Smart Contract Developer Jul 2020 - Feb 2022

* Researched the requirements for a smart contract to be used in a cryptocurrency escrow project.
* Developed a detailed roadmap for the ICO project and designed contracts for each step.
* Crafted the smart contract design for the escrow project, encompassing various functions and modules using UML diagrams.
* Using Remix, created a token contract for the escrow platform based on the ERC20 protocol, named PayrLink with the symbol $PAYR, and conducted testing and deployment with an audit by a trusted organization.
* Implemented each stage of the ICO using Solidity and the Truffle framework to enhance project quality and accelerate development.
* Spearheaded the creation of an escrow contract specifically tailored for handling ETH and ERC20 tokens, ensuring a secure and reliable escrow mechanism for token-based transactions.
* Pioneered the development of a robust token staking contract designed to facilitate the staking of the $PAYR token, thereby empowering users to actively participate in the staking process with confidence.
* Led the design and implementation of an innovative farming contract, enabling seamless and efficient farming activities utilizing the $PAYR token, thereby enhancing the token's utility and value within the ecosystem.
* Spearheaded the development of a comprehensive factory contract designed to oversee and manage the entire spectrum of contracts and projects within the ecosystem.
* Engaged in a collaborative effort with the Frontend and Web3 teams to optimize the efficiency of project development, leveraging collective expertise to drive impactful results and ensure seamless integration of cutting-edge technologies.
* Employed Github as a pivotal platform for project management, fostering a collaborative environment that facilitated cohesive teamwork while upholding uncompromising standards of quality and security throughout the project's lifecycle.
* Orchestrated seamless collaboration with the Execution team, ensuring alignment with project objectives and enabling the precise and effective implementation of development strategies to propel the project forward with precision and excellence.
* Offered comprehensive technical support to augment project advertising and marketing endeavors, leveraging specialized expertise to optimize promotional strategies and enhance the project's visibility and impact within the target market.
* Collaborated closely with the QA testing team to systematically identify vulnerabilities and bugs within the project, and subsequently implemented effective solutions to rectify these issues, ensuring the project's robustness and reliability.

**Environment:** Solidity, Smart Contract, ERC20, ICO, Staking, Farming, Remix, VS Code, Unit Test, Goerli, Truffle

**Upwork.com (Remote, Contract)** **(Singapore, Singapore)**

Upworker Dec 2019- Jul 2020

* Spearheaded the development of three distinct landing pages for a prominent tourism website, each meticulously designed to captivate and engage visitors, thereby enhancing the overall user experience and driving meaningful interactions.
* Led the implementation of a sophisticated web scraping project tailored for a prominent shopping site, enabling the seamless extraction of valuable data to inform strategic business decisions and optimize market insights.
* Engineered a cutting-edge DEX Sniping bot designed to tactically follow the strategies of other bots, leveraging advanced algorithms to capitalize on market opportunities and drive competitive advantage within the decentralized exchange landscape.
* Orchestrated the development of the Crypto Vault project, encompassing frontend development and smart contract implementation, thereby establishing a secure and reliable platform for managing and safeguarding digital assets within the cryptocurrency ecosystem.
* Pioneered the creation of DreamJob, a dynamic and user-centric job site designed to connect aspiring professionals with their dream career opportunities, fostering a seamless and intuitive job search experience.
* Architected the development of smart contracts and frontend infrastructure, integrating Web3 technology to power a cutting-edge NFT Marketplace, thereby enabling secure and transparent transactions within the burgeoning NFT ecosystem.

**Environment:** React.js, Next.js, Solidity, Smart Contract, ERC20, ERC4626, NFT Marketplace, ICO, Staking, Farming, Remix, VS Code, Unit Test, Goerli, Truffle, Crypto Trading, Node.js, Express.js

**Wizardsdev (Onsite, Contract)** **(Singapore, Singapore)**

Web Developer Oct 2017- Dec 2019

* Implemented websites, mobile applications, and landing pages from concept through deployment.
* Standardized all output with a new, responsive, mobile-first approach and strategy.
* Spearheaded the standardization of all outputs through the implementation of a cutting-edge, responsive, mobile-first approach and strategy, ensuring seamless accessibility across diverse devices and platforms.
* Conducted comprehensive assessments of UX and UI designs to ascertain technical feasibility, thereby optimizing the overall user experience and interface functionality.
* Led the development of sub-applications utilizing Next.js for both backend and frontend, integrating advanced technologies such as TypeScript, RxJS, HTML5, CSS, and Bootstrap to deliver robust and sophisticated solutions.
* Executed rigorous testing protocols on applications, encompassing exhaustive unit testing across various use cases, and meticulously documented results for stakeholder review and approval.
* Provided invaluable support to the Operations team, offering expertise in deployment and troubleshooting of production issues on a recurring basis, thereby ensuring operational continuity and efficiency.
* Engineered React JavaScript frameworks tailored to optimize Restful APIs, elevating the functionality and performance of web applications to meet and exceed user expectations.
* Translated UI/UX design wireframes into captivating visual elements of web applications, delivering high-quality, reusable markup using HTML5 and CSS3, thereby enhancing the overall aesthetic and functionality.
* Elevated problem-solving capabilities by tackling complex challenges, fostering a culture of continuous improvement and innovation within the development process.
* Ensured streamlined web development processes by collaborating with designers and app developers, effectively resolving website performance issues and optimizing user experience.
* Crafted dynamic and cross-browser compatible web pages using HTML5, CSS3, jQuery, and Javascript, ensuring seamless functionality and visual appeal across various platforms.
* Designed captivating and engaging web pages and components for company clientele, incorporating flexible animations and interactive elements to enhance user engagement and satisfaction.
* Adapted to the Agile Development Model, fostering seamless collaboration with team members and enabling swift adaptation to evolving project requirements and priorities.
* Maintained the front-end in alignment with customer specifications, ensuring that the end product consistently meets and exceeds client expectations.
* Collaborated closely with product team members to seamlessly implement new feature developments, leveraging collective expertise to drive continuous innovation and enhancement of the product offering.

**HONOR REWARD**

**Champion of Dapp and Dash Campaign** Nov 2023 - Dec 2023

Forward - Rootstock on AlphaGuility