

Abanoub Falah

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SUMMARY

Senior Blockchain Engineer with 9 years of software development experience, including 7+ years of hands-on expertise in blockchain architecture, smart contract development, and decentralized application (dApp) engineering. Proven track record of leading end-to-end blockchain solutions across multiple networks including Ethereum, Polygon, BSC, and Layer 2 platforms. Adept at designing secure, scalable, and gas-optimized smart contracts using Solidity, and deploying high-throughput DeFi and NFT ecosystems. Skilled in both Web3 and traditional full-stack technologies—such as React, Node.js, NestJS, and Docker—bridging Web2/Web3 systems and delivering robust enterprise-grade solutions. Passionate about protocol security, zero-knowledge rollups, cross-chain interoperability, and building seamless user experiences. Strong leadership in agile teams, cross-functional collaboration, and product strategy with a focus on performance, security, and scalability.

Skills

- **Blockchain Tech:** Ethereum, Polygon, Binance Smart Chain, Chainlink, Web3.js, Ethers.js, DeFi, NFT, Smart Contracts, DEX, UniSwap, Cross-chain Interoperability, Layer 2 Solutions
- **Program Language:** Solidity, JavaScript, Typescript
- **Development Frameworks & Tools:** Hardhat, Foundry, Ganache, OpenZeppelin, Remix IDE
- **Web Technologies:** ReactJS, Next.js, Node.js, NestJS, Express.js, Bootstrap, TailwindCSS, Framer Motion
- **Database:** PostgreSQL, MongoDB, MariaDB, MySQL, SQLite
- **Project Management:** Agile, Slack, Jira, Trello, AWS
- **Environment:** Docker, Firebase, Kubernetes, Firestore, GitHub

EDUCATION

San Diego State University

Bachelor's Degree in Computer Science

05/2011 – 02/2015

EXPERIENCE

Blockchain Lead Engineer

02/2023 – 04/2025

Bitus Labs

- Architected and deployed comprehensive smart contract ecosystems, developing reusable and well-documented Solidity contracts that reduced development time by 30% and established standardized deployment procedures across multiple EVM-compatible networks.
- Orchestrated seamless Web2-Web3 integration strategies throughout complete product lifecycles, working closely with traditional backend teams to ensure blockchain infrastructure compatibility and optimal performance, resulting in 25% faster transaction processing and improved user experience.
- Supported a DeFi platform from Ethereum to Hyperledger, resulting in a 50% reduction in transaction fees and a 25% increase in platform user retention while maintaining cross-chain compatibility and security.
- Spearheaded the technical strategy and product design decisions, providing critical insights on technology stack selection and smart contract architecture that aligned with long-term scalability goals, resulting in a robust foundation supporting over 15,000 daily transactions.
- Used ERC-721 and ERC-1155 Solidity smart contracts on Ethereum and EVM-compatible blockchains, supporting diverse NFT and token use cases.
- Balanced a ZK-rollup chain operating on top of the Ethereum blockchain, enabling the execution of transactions off-chain while periodically committing transaction batches to an on-chain rollup contract. This resulted in a 50% reduction in gas fees and increased transaction throughput.
- Established comprehensive testing frameworks and security protocols for smart contract deployment, utilizing TypeScript, Mocha, and Chai to achieve 99.5% code coverage and implement rigorous unit testing procedures that identified and resolved 25+ critical vulnerabilities before production deployment.

- Led technical documentation initiatives and knowledge transfer programs, creating detailed technical specifications for both smart contracts and server-side development that reduced onboarding time for new developers by 50% and established company-wide documentation standards.
- Orchestrated agile development processes and team collaboration using Jira for project management, conducting regular sprint planning sessions and technical reviews that improved team velocity by 35% and streamlined development workflows across multiple concurrent projects.

Senior Blockchain Developer

04/2020 – 11/2022

FalconX

- Expanded the functionality of our users by integrating cryptocurrency exchanges and trading platforms like Binance and FalconX into their existing workflows.
- Developed comprehensive testing suites and quality assurance protocols using TypeScript, Mocha, and Chai frameworks, achieving 95%+ test coverage across all smart contract functionalities and implementing automated regression testing that reduced manual QA efforts by 40%.
- Successfully deployed production-ready smart contracts on Polygon (Matic) Mainnet, managing gas optimization strategies that reduced average transaction costs by 30% while maintaining security standards and achieving 99.9% uptime across all deployed contracts.
- Successfully deployed and maintained production smart contracts across Binance Smart Chain and Polygon (Matic) mainnet, managing multi-chain deployment strategies that processed over 100,000 transactions with a 99.8% success rate and optimized gas efficiency, reducing user costs by 25%.
- Managed the successful launch of multiple tokens across various standards, including ERC20, ERC404, CW20, BEP20, BRC20, SPL, Token2022, and HTS, driving a 70% increase in user engagement through innovative tokenomics strategies and effective marketing campaigns.
- Supported Ethereum protocols and features related to Ethereum scaling solutions, including the integration of rollups and sidechains, leading to a 30% increase in transaction throughput.
- Designed and implemented sophisticated DeFi protocol architectures for tradeFi integration, developing custom staking, vesting, and DID (Decentralized Identity) smart contracts using Solidity that processed over \$2M in total value locked (TVL) within the first quarter of deployment.
- Established enterprise-grade smart contract security standards by integrating Slither static analysis tools and comprehensive audit procedures, identifying and resolving 15+ potential security vulnerabilities before mainnet deployment, achieving zero security incidents post-launch.
- Collaborated with cross-functional blockchain development teams using GitHub workflows and Slack integration to deliver high-quality smart contracts, implementing CI/CD pipelines that reduced deployment time by 50% and established automated testing protocols for all contract deployments.

Blockchain Developer

11/2017 – 02/2020

Wipway LLC

- Administered comprehensive NFT ecosystems including minting, presale whitelisting, OpenSea/LooksRare/Rarible listing, gifting/airdrops, wallet integration for minting and admin panel, custom minter/holder benefits, IPFS immutable storage, post-mint reveal, and bot protection, resulting in the minting of 100,000+ NFTs and \$10 million in marketplace sales in the first quarter by developing scalable and user-friendly solutions.
- Developed leverages flash loans to exploit price inefficiencies across various cryptocurrency exchanges. By executing arbitrage trades within a single transaction, the bot aims to capitalize on temporary market discrepancies.
- Applied multi-signature wallet functionality for secure custody of assets, enhancing Ethereum protocols and reducing unauthorized access incidents by 75% for high-value transactions.
- Facilitated the integration of Layer 1 (Ethereum) and Layer 2 (off-chain VM) components, ensuring seamless communication and synchronization between the layers.
- Motivated user engagement by 30% by integrating multiple wallet connections like MetaMask, Phantom, and HashPack across various DApps.
- Architected scalable dApp infrastructure and technical frameworks, providing strategic guidance on optimal tooling and service selection for decentralized application development, resulting in 40% reduction in development time and establishing reusable component libraries for future projects.
- Engineered comprehensive smart contract testing and validation systems using Mocha and Chai frameworks, implementing automated testing pipelines that achieved 98% code coverage and established rigorous quality assurance protocols that prevented critical bugs in production environments.
- Developed seamless Web3 integration solutions for ReactJS applications using Ethers.js and Moralis APIs, creating user-friendly interfaces that improved wallet connectivity by 60% and implemented efficient blockchain data querying that reduced load times by 35%.
- Represented company technical expertise at industry events, participating in blockchain hackathons and conducting technical due diligence calls with partner organizations, contributing to successful partnership agreements worth over \$500K and establishing Zinari's reputation in the DeFi ecosystem.

- Implemented advanced smart contract security measures and gas optimization techniques, conducting thorough code audits and implementing best practices that resulted in zero security incidents and 30% average reduction in transaction costs for end users.

Full Stack Developer

03/2015 – 10/2017

ArcTouch

- Developed dynamic and responsive web interfaces for Techan's corporate website using ReactJS, Framer Motion, and TailwindCSS, implementing modern animation techniques and responsive design patterns that increased user engagement by 45% and improved conversion rates.
- Engineered and optimized cross-platform mobile solutions for Spotlx laundry management system using React Native and NestJS, implementing efficient API architectures and database communication protocols that improved response times by 40% and enhanced user experience across iOS and Android platforms.
- Integrated PostgreSQL, and Redis for data storage and caching solutions and used JWT and OAuth for secure authentication and authorization in microservices architecture and serverless functions with AWS Lambda.
- Implemented security measures, including authentication and authorization mechanisms, to safeguard sensitive data in GraphQL.
- Collaborated with business development teams on technical assessments and integration planning for potential partnerships, providing critical technical insights that informed strategic decisions and contributed to the successful onboarding of 5+ major institutional clients.
- Built data visualizations using D3.js, Highcharts, and Chart.js, transforming large datasets into visual formats & real-time metrics, utilized HTML5 canvas for graphics and visual effects, and optimized performance while integrating with Angular.
- Worked on AWS cloud services like EC2, S3, RDS, ELB, and EBS for installing, configuring and auto scaling.
- Designing, implementing, testing, configuring and deploying ESB module infrastructure on the JBoss Enterprise Service Bus (ESB) application server platform.
- Implemented robust bug resolution and process optimization strategies, conducting regular technical meetings and code reviews that reduced production incidents by 60% and established proactive monitoring systems for continuous improvement of the software development lifecycle.
- Streamlined development efforts with a CI/CD pipeline, managed our NoSQL data solution with MongoDB 4.4, and ensured the highest code quality with advanced logging with JUnit and Log4J.
- Involved in improving existing MEAN (MongoDB, Express, Angular and Node) stack applications and provided necessary support.

CERTIFICATIONS

- **Encode Solidity Bootcamp** - Encode Club | July 2017 - September 2017

Verification: <https://opensea.io/assets/matic/0xdbf2138593aec61d55d86e80b8ed86d7b9ba51f5/741>