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Languages

English

Skills

Solidity

Ethereum

DEX

Hardhat

Ethers.js

JavaScript

TypeScript

HTML

CSS

React.js

Next.js

Vue.js

Node.js

Express.js

Nest.js

Fastify

MongoDB

MySQL

PostgreSQL

Ruby on Rails

Apache Cassandra

AWS

SWR

Docker

Datadog

Kubernetes

GraphQL

Prisma

Ruby

WebSocket

Kafka

gRPC

Redis

Restful APIs

Bruno Silva

Software developer

Bruno is a seasoned Senior Fullstack Engineer with expertise in JavaScript, TypeScript, React, and Vue for front-end development. His backend proficiency includes Node.js, NestJS, and Express, complemented by experience in Solidity and Ethereum for blockchain projects. Bruno is adept at leveraging AWS for cloud solutions, making him a versatile asset in modern web and decentralized application development.

Education

● Bachelor's degree in Computer Science

From April 2013 to April 2017 [Federal University of Santa Maria](#) Brazil

Work experience

● Senior Blockchain and Full-stack Developer

From February 2023 to October 2024 [VizworX](#) Canada

VizworX is a software development agency based in Canada. I led the development of a DEX platform that forked the GMX decentralized perpetual exchange on Arbitrum. The product was a decentralized spot and perpetual exchange that supports low swap fees and low price-impact trades.

- Conducted thorough research on GMX decentralized exchange architecture and functionality.
- Analyzed and selected common data structures, such as hashmaps, arrays, sets, queues, stacks, and lists, to align with the general purpose effectively.
- Analyzed GMX's smart contracts, tokenomics, and on-chain transaction flows.
- Defined the goals and requirements for the new DEX platform (e.g., low fees, scalability, user experience).
- Planned the integration of key features like perpetual swaps, spot trading, liquidity provision, etc.
- Designed a robust, scalable architecture for the DEX platform, including off-chain and on-chain components.
- Ensured the platform supports multiple chains (e.g., Arbitrum) and cross-chain compatibility.
- Implemented and tested the platform's ability to handle high transaction volumes with low latency.
- Developed custom smart contracts for token swaps, liquidity pools, and staking functionalities.
- Integrated decentralized oracles for price feeds and other real-time data.
- Implemented decentralized governance and DAO functionalities for community-driven decisions.
- Ensured contracts were optimized for low gas fees and high throughput.
- Implemented multi-signature wallets and secure key management practices.
- Ensured protection against common vulnerabilities like reentrancy, overflow/underflow, and front-running.
- Designed a user-friendly frontend with intuitive navigation and minimalistic design.
- Integrated the platform with a secure Web3 wallet (e.g., MetaMask, WalletConnect).
- Developed real-time price charts and trading pair statistics.
- Integrated a liquidity pool system for users to provide liquidity and earn rewards.
- Enabled staking and yield farming for liquidity providers.
- Set up tokenomics to incentivize long-term participation (e.g., rewards, fee reductions).
- Set up a system for monitoring platform performance and tracking issues in real-time.
- Established ESLint rules for React and Node.js repositories.
- Designed and deployed AWS Lambda functions to handle business logic for different stages of the order lifecycle (order validation, payment processing, and inventory management).
- Implemented AWS SQS as a message broker to decouple microservices.
- Used Amazon CloudWatch to monitor the performance of Lambda functions and track errors or delays in message processing from SQS queues.
- Utilized Redis for session management, caching frequently accessed data, and distributed locking.
- Integrated third-party APIs and microservices architecture to enhance functionality.
- Utilized TypeScript for strong typing and reducing runtime errors, improving code maintainability.
- Managed infrastructure through AWS CloudFormation and CI/CD pipelines for automated deployments.

Technologies: Solidity, Hardhat, Biconomy, TheGraph, Moralis, Alchemy, Ethereum, Binance Smart Chain, TypeScript, React, Redux, Node, AWS SQS, AWS Lambda, AWS CloudWatch, Microservices, Apache Kafka, Agile

Work experience

Lead Full-stack & Blockchain Developer

From September 2020 to December 2022 [MetalCore](#) United States

MetalCore is a real-time persistent multiplayer combat game dedicated to tactical mechanized warfare and resource management in the far future.

- Designed and built infrastructure for Web3 wallet integration including the ability to directly connect to external wallet providers, enabling seamless onboarding of crypto native alongside the social login.
- Designed web3 structure for token management dApp. Used Solidity and Hardhat to write smart contracts.
- Developed core smart contracts for governance tokens, gaming NFTs, sale, staking, cross-chain bridging, and other functions.
- Supported minting and creating the first NFT collection on OpenSea. Contributed to the development of various web applications with an emphasis on creating reusable UI components for efficient code sharing and maintenance. Experience with React allowed me to produce efficient, responsive, and user friendly interfaces, resulting in successful projects.
- Live video conferencing & collaboration tool using WebRTC and JavaScript support peer-to-peer and group room allows up to 15 participants to join a video room with screen sharing, text messaging, and sharing files features. Allowing the entire team real-time communication and collaboration.
- Authentication/ messaging/ wallet modules and related interfaces like HTTPS, sockets, and CLI.
- Migrated the application architects from Monolith to Microservices pattern, which maximizes the final system's scalability.
- Implemented purchase/transfer/delivery logic and notification system.
- Integrated various third-party APIs for fetching and aggregating the cryptocurrency data and visualizing the analytics data.
- Upgraded components and made major changes to the existing application's user interface, web services, database, and processing.
- Developed a revolutionary, full customizable, cross-platform, language-controlled software development platform using JavaScript frameworks.
- Added unit & integration tests to Node.js backend and microservices.
- Contributed to and helped build our design system library with the design team.
- Refactored 80% of our flagship React product with 150+ components to Hooks while upgrading it from Node.js 6 on Alpine to Node.js 14 on Alpine.
- Initiated and built a GraphQL-based SPA, which laid the groundwork for an internal Kafka graph visualization tool.

Technologies: Solidity, Ethers.js, Hardhat, TheGraph, Biconomy, React, Redux, HTML, CSS, TypeScript, GRPC, Express, PostgreSQL, Redis, NextJS, AWS, Kafka, GraphQL

Work experience

Full-stack Developer

From April 2018 to February 2020 [Coverdash](#) United States

- Developed integration tests based on Cypress for React application.
- Fixed and solved issues for the product clients using Intercom.
- Developed new features for the dashboard and embeddable React application for no-code Stripe billing integration.
- Built a full web application platform for an insurance brokerage startup from scratch.
- Created the architecture for the web application, including the database schema, authentication and authorization, front-end framework, and styling library, as well as supporting external APIs and tools.
- Built a public component library published on NPM to be used by external business partners.
- Managed user account data in an Express application and MongoDB.
- Developed back-end microservices in Node.js and TypeScript. Integrated them with AWS products (SQS, SMS, ES, and so on).
- Made a complicated reports API based on partitioned tables in a PostgreSQL database.
- Built multiple React/Redux applications and libraries.
- Constructed a library that enables connections to back-end services and React applications via WebSockets.
- Wrote unit tests and improved code quality using automated tools (such as ESLint, TSLint, TypeScript, and Flow).
- Refactored and updated old React and Node.js applications to new library versions.
- Prepared landing page based on Gatsby following the provided design in Figma.
- Built integration tests in a framework based on Selenium.
- Created React components that replaced legacy jQuery code.

Technologies: JavaScript, React, Ruby on Rails, Next.js, Tailwind CSS, Prisma, PostgreSQL, NPM, Back-end, Front-end, Auth0, Auth0 API, Tailwind UI, Finance

Work experience

● Web Development Intern

From July 2017 to December 2017 [Exati](#) Brazil

Exati street light management is an asset and workforce management solution. It centralizes all the assets registrations and history, together with the workforce management, to fix all the problems reported by the users.

- Architected a multitenant on-premise solution respecting the IT specifications of the oil and gas companies. Developed the Java framework on top of JAX-RS, generating a REST API for communication with our front end developed on React.
- Co-developed a mobile app using React Native so it could be used as a scanning tool, synchronizing pictures of a 3D camera using BLE integration and 3D equipment rendered in the mobile app using expo-gl.
- Developed the API Bridge for Android in React Native to connect to Insta360 One X2 Camera for the scanning tool.
- Developed a Cordova plugin to connect to Insta360 One X2 Camera for the scanning tool.
- Developed a mobile app on Ionic required to have the whole 3D industrial asset run smoothly and automatically sync whenever it had internet on top of CouchDB to sync and interact with external sensors via custom BLE Protocol.
- Architected the communication and synchronization between the mobile app and the on-shore and off-shore servers.

Technologies: PostgreSQL, Vue, Docker, Node.js, CouchDB, JavaScript, Back-end, Architecture, REST, React Native, SQL, React, Redux, Next.js, Java, Spring Boot, Bluetooth, Cordova Plugins, SOAP, APIs