

Sammed S Betadur — Full Stack Web3 Engineer

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Summary

Full Stack Web3 Engineer with 3+ years building event-driven backend services, DeFi protocol infrastructure, and multi-chain systems. Experienced with Node.js, Express.js, AWS SQS, Solidity, and onchain data pipelines. Built infrastructure synchronizing 6,000+ wallets concurrently and systems processing data for 90K+ wallets. Interested in building reliable financial infrastructure at the intersection of blockchain and decentralized markets.

Technical Skills

Backend & Infrastructure: Node.js, Express.js, REST APIs, GraphQL, MongoDB, AWS, Docker, IPFS, Terraform

DeFi Research & Mechanism Design: LVR Analysis, Dynamic Fee Mechanisms, AMM Backtesting, Python Quantitative Modeling, Foundry Fuzz & Invariant Testing

Blockchain & Protocol: Ethereum, EVM, Uniswap V2/V4, Uniswap V4 Hooks, Chainlink Oracles, The Graph, Safe Apps, WalletConnect, Multi-chain Integrations

Frontend & Web3: React.js, Next.js, Ethers.js, Wagmi, Viem, RainbowKit, Zustand, TanStack Query

Languages: TypeScript, JavaScript, Solidity, Python

Developer Tooling: Foundry, Hardhat, Git, GitHub

Experience

Judge Finance – Full Stack Web3 Developer

Feb 2024 – Apr 2024

- Built a cross-chain DeFi Earn dashboard for YieldCoin, integrating balances, APY calculations, portfolio analytics, and real-time yield data.
- Developed deposit and withdrawal flows integrating smart contracts and abstracting complex yield mechanics into simple user-facing interfaces.
- Built a protocol **Subgraph** for indexing onchain events and synchronizing DeFi protocol state for application and analytics services.
- Implemented multi-chain blockchain infrastructure using **Ethers.js**, fallback RPCs, and Zustand for resilient wallet and balance management.
- Integrated **Safe Apps** and blockchain infrastructure supporting CCIP/CRE-based yield systems and cross-chain financial workflows.
- Designed reusable frontend and data components for scalable DeFi applications spanning multiple blockchain networks.

FerrySwap – Frontend Web3 Developer

Jun 2023 – Jan 2024

- Built a multi-chain DEX interface supporting Bitcoin, Monero, Ethereum, and EVM-compatible assets within a unified trading experience.
- Implemented wallet, authentication, and transaction flows across EVM and non-EVM blockchain networks.
- Integrated blockchain and wallet SDKs including **RainbowKit** and custom transaction infrastructure for reliable onchain interactions.
- Built responsive, reusable frontend components using **React**, **Next.js**, and TailwindCSS based on Figma designs.
- Collaborated with backend and protocol engineers to integrate blockchain services and onchain data into production user flows.
- Optimized multi-chain application architecture for reliable wallet connectivity, transaction execution, and blockchain state management.

Zeru.finance – Full Stack Web3 Developer

Apr 2024 – Feb 2025

- Engineered event-driven backend services using **Express.js**, **MongoDB**, and **AWS SQS** to synchronize 6,000+ wallets across Base and Arbitrum networks.
- Simulated AWS infrastructure locally using Docker containers and SQS queues, reducing event loss to **0%** and accelerating testing workflows.

- Redesigned and optimized Zeru Finance, a full-stack DeFi lending protocol, improving protocol UX and application performance using **Next.js**, React, and TailwindCSS.
- Built production-grade frontend modules interacting with complex lending smart contracts while managing real-time protocol state synchronization using **Zustand** and **TanStack Query**.
- Integrated Web3 wallet SDKs including **Wagmi** and **RainbowKit**, improving onboarding and transaction reliability across EVM-compatible networks.
- Optimized blockchain interaction layers using **Ethers.js**, improving application responsiveness and increasing performance scores from **40 to 70**.
- Delivered scalable, production-grade DeFi infrastructure across frontend and backend systems, supporting multi-chain integrations, event-driven services, and high-volume protocol interactions.

Open Source Contributions

CoW Swap Protocol – Open Source Contributor

- Contributed to the **CoW Swap** frontend codebase by improving affiliate feature integration, navigation consistency, and responsive behavior in a production **Next.js** application.
- Resolved integration-focused frontend issues involving feature flag synchronization, responsive layouts, and navigation UX across multiple sections of the CoW Swap interface.
- Contributed merged pull requests including [PR #5579](#) and fixes related to [Issue #7273](#), demonstrating familiarity with the CoW Protocol codebase and engineering workflows.

Projects

Oscillon | *Solidity, Foundry, Uniswap v4, TypeScript, Next.js, Wagmi, Ethers.js, PostgreSQL* [GitHub Link](#)

- Designed a **Uniswap v4 depeg-protection hook** that modifies swap fees based on stablecoin price dislocations, targeting toxic arbitrage flow during market stress.
- Built an on-chain **oracle-driven risk engine** using Chainlink feeds, deviation checks, and fallback TWAP logic to classify market conditions and determine fee responses.
- Implemented and tested swap accounting, fee transitions, and failure conditions in **Solidity/Foundry**, including invariant and fork testing against historical market scenarios.
- Developed TypeScript tooling to replay and analyze **95K+ historical swap observations**, comparing dynamic versus static fee policies across calm and depeg regimes.
- Validated the mechanism against historical USDC stress data, measuring LP fee capture, drain-flow volume, and incremental LP income under the proposed fee policy.

TrunkSwap DApp | *foundry, Solidity, Ether.js, Next.js, TypeScript, Wagmi, TailwindCSS, Zustand* [Github Link](#)

- Built a **decentralized exchange** using a **Uniswap V2 fork** deployed on Arbitrum Sepolia, with a full React frontend handling swap quotes, token approvals, slippage protection, and real-time Chainlink price feeds.
- Integrated **Wagmi** and **RainbowKit** for wallet connection, **Zustand** for state management, and custom React hooks abstracting on-chain interactions from UI components.

Education

KLE Institute of Technology, Hubli
Bachelor of Engineering in Computer Science

Aug 2019 - May 2023
 Hubli, Karnataka