

PRAKASH KHATRI

DeFi / Cross-Chain Infrastructure Engineer

pkhatri981@gmail.com | pkhatri.xyz | github.com/0xPkhatri | x.com/0xPkhatri

PROFESSIONAL SUMMARY

DeFi and cross-chain infrastructure engineer with a quantitative engineering and research foundation. Hands-on experience spans smart contracts, automated arbitrage execution, crypto payments, account abstraction, and multi-chain transaction infrastructure across EVM ecosystems, Solana, and Sui. Built systems involving concurrent price discovery, transaction signing and execution, Wormhole TokenBridge transfers, VAA handling, destination redemption, retries, validation, and execution risk controls. 3rd Place winner at ETHGlobal Bangkok for OptiPair.

TECHNICAL SKILLS

Blockchain & Smart Contracts: Solidity, EVM, ERC-20 transaction flows, ERC-4337, ERC-7579, smart accounts, account abstraction, transaction signing and execution

Cross-Chain: Wormhole, TokenBridge, VAA lifecycle, bridging, cross-chain redemption, settlement, finality, bridge risk

DeFi: AMMs, DEXs, arbitrage, liquidity, slippage, options, market-making concepts, tokenomics, oracle risk, governance risk, MEV concepts

Chains & Protocols: Ethereum, Arbitrum, Optimism, Base, BSC, Polygon, Fantom, Solana, Sui; KyberSwap, Jupiter, Cetus, 1inch, Odos, Pimlico, Rhinestone, Safe, The Graph, Alchemy

Programming: Python, async Python / asyncio, Web3.py, JavaScript, TypeScript, Solidity, GraphQL, Next.js, TailwindCSS, RPC infrastructure, API integration

EXPERIENCE

Web3 Startup Movement - Cross-Chain Wallet & Payments Engineer | March 2025 - May 2026

- Developed cross-chain crypto payment infrastructure enabling token acceptance across multiple blockchain networks while abstracting routing and settlement complexity from the payment flow.
- Worked across payment-flow concerns including multi-chain token acceptance, transaction execution, confirmation/finality, liquidity and slippage, cross-chain latency, failed-transaction handling, token compatibility, wallet/account security, and merchant-oriented UX.
- Evaluated payment architecture through the lens of routing, settlement, chain-specific execution, and operational risk rather than treating blockchain connectivity as a simple API integration.

AuditFinder.xyz - Lead Development (Former Role / Project) | End date to verify

- Led development of a fast, typo-tolerant search experience for discovering smart-contract audit reports.
- Worked with audit-report datasets and vulnerability research, strengthening familiarity with protocol logic review and recurring smart-contract vulnerability patterns.

SELECTED PROJECTS

Cross-Chain Arbitrage System | EVM, Solana, Sui, Python, Web3.py, Wormhole

- Designed and implemented a non-atomic cross-chain arbitrage pipeline spanning multi-chain price discovery, buy execution, cross-chain transfer, bridge attestation/VAA handling, destination redemption, re-quotation, and sell execution.
- Collected DEX quotes concurrently with asyncio across eligible chains, normalized token decimals, selected buy/sell venues, and applied configured opportunity thresholds.
- Integrated KyberSwap for EVM execution/quotes, Jupiter for Solana, and Cetus for Sui; implemented ERC-20 approvals, transaction building/signing, confirmation checks, retry handling, and RPC failover.
- Implemented Wormhole TokenBridge lifecycle handling including source transfer, recipient encoding, VAA retrieval/decoding/validation, destination checks, and redemption/completion flows.
- Added safeguards including fresh-price validation, minimum-output thresholds, slippage controls, gas-price gates, bounded retries, transaction-status checks, bridge tracking, duplicate-transfer protection behavior, and pre-redemption validation.
- Explicitly accounted for cross-chain execution risks including bridge/finality latency, price movement, destination liquidity changes, gas volatility, inventory exposure, and execution failure.

OptiPair | ETHGlobal Bangkok - 3rd Place

- Built DeFi logic and a mathematical approach for allocating liquidity across selected options strike positions to address fragmented options-market liquidity and price discovery.
- Integrated the liquidity-allocation logic into the blockchain application and collaborated across algorithm, smart contracts, frontend, protocol integration, and testing under hackathon time constraints.

Munjo | Modular Smart Accounts / Treasury Management

- Worked on a DAO/treasury-management application using Solidity, ERC-7579 modular smart accounts, Pimlico, Rhinestone, The Graph, and GraphQL.
- Applied account-abstraction concepts to smart treasury workflows and Web3 infrastructure integration.

Asanjo | DeFi Trading / Account Abstraction

- Built around ERC-4337 / ERC-7579 smart-account concepts for gasless and scheduled transaction workflows, including limit-order, stop-loss, and take-profit concepts.
- Worked with the Safe/account-abstraction ecosystem and smart-account architecture relevant to wallet infrastructure and DeFi UX.

RESEARCH & SECURITY

- DeFi research: Uniswap V2/V3, constant-product AMMs, concentrated liquidity, arbitrage optimization, options pricing, Black-Scholes, probability/normal-distribution concepts, gross vs. net profit, and MEV implications.
- Smart-contract security research through competitive audit platforms including Sherlock and Code4rena, with exposure to protocol logic review, vulnerability-pattern analysis, and competitive audit workflows.

EDUCATION

Indian Institute of Technology - M.Tech, Mechanical Systems Design | Jul 2018 - Jun 2020

Research included molecular dynamics involving boron nitride nanotubes; strengths in mathematical modeling, optimization, quantitative reasoning, and complex systems analysis.

Government Engineering College - B.Tech, Mechanical Engineering | Jul 2014 - Jun 2018