

Nikhil Arora | Smart Contract Engineer

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Smart Contract Engineer with **4+ years building production DeFi protocols** and **8+ years of full-stack development**. At Oryn, built **novel derivatives** systems managing **\$530M+ volume** and **20k+ users**. Led **complete product cycles** from smart contract architecture to UI implementation. Proven track record shipping **complex DeFi primitives** in lean teams, with expertise in perps, auction mechanisms, and full-stack Web3 development.

Key Achievements

- Built novel **4-perp derivatives system** - power perps (x^0 , x^1 , $x^{1/2}$, x^2) enabling any financial payoff composition in **10k+ lines of Solidity** across lean 3-person team
- Implemented **ERC-1167 minimal proxy factory** for one-click deployment of any ERC20 token pair market - deploys power perps, oracles, market making vaults, and insurance pools
- **Reduced gas costs by 30%** through optimization and refactoring for factory deployment
- Deployed contracts on **Arbitrum Sepolia** now serving **10k+ users** with live app and event indexing
- Led **Squeeth protocol shutdown** for **20k+** users with zero incidents
- Contributed **full-stack** - from smart contracts to DevOps, and frontend handling **\$530M+ volume**

Technical Skills

- **Programming Languages:** Solidity (3 years), TypeScript (8 years), JavaScript (8 years), Python (2 years)
- **Smart Contract Development:** Foundry, Hardhat, OpenZeppelin, Solmate
- **DeFi Protocols:** Options, Perps, Uniswap v3 / v4, Euler v2, GDA auctions, ERC-4626 vaults
- **Full-Stack Development:** React, Next.js, Node.js, Viem, Ponder, The Graph, Supabase, Postgres
- **DevOps & Monitoring:** AWS, GCP, Cloudflare, Docker, GitHub Actions, Tenderly, OZ Defender, Sentry
- **Security Tools:** Slither, Echidna, Foundry Fuzz

Experience

[Oryn Markets](#) | Smart Contract Engineer

February 2023 – Present

Next-gen perp protocol enabling permissionless deployment for any ERC20 token pair

- **Core smart contract contributor** in 3-person team managing over **10k+ lines of Solidity**
- Led initiative on **designing and researching** a number of contracts
- **Reduced gas costs by 30%** through assembly optimizations and storage layout improvements
- Authored **deployment scripts** for testnet launch, optimizing contracts to stay under bytecode and gas limits
- Led **product development** working closely with frontend team - testnet now serves **10k+ users**
- Designed **database schemas** and caching strategies for user positions, protocol events, and historical data

[Squeeth](#) | Senior Product Engineer

October 2022 - February 2023

ETH² derivatives protocol enabling leveraged ETH exposure without liquidations

- **Collaborated with smart contract team** reviewing contracts and contributing to development from time to time
- **Led Squeeth app redesign** within first month working directly with founders, shipped in under one week
- **Sole developer** who handled protocol shutdown for **20k+** users with zero incidents
- Implemented **OFAC compliance** and **geoblocking** - VPN detection, sanctions screening at smart contract integration level
- Led **weekly shipping campaigns** with public accountability tweets, built internal TVL/OI dashboards contributing to **460% Crab TVL growth** (888 → 5,000 ETH)
- Built UI and product features handling **\$5M+ daily volume** at peak with seamless smart contract integration

TechGuides LLC | Founding Engineer

June 2020 - July 2022

Web3 startup building crypto consumer products

- Built **NFT auction platform** ([cryptoisreal](#)) handling **\$20k+ revenue** from 200+ users across 42 auctions
- Built [marketcap.guide](#) crypto ticker serving **5k+ daily users** - indexed Twitter / Reddit posts for real-time coin insights and trend discovery
- Architected AWS infra using SQS, API Gateway, EC2, Beanstalk, S3, Lambda, DynamoDB - optimized performance with lazy loading **reducing initial loading time by 30%**
- Designed PostgreSQL database schemas optimizing for NFT metadata, bid history, and user analytics with **sub-100ms** query performance
- Managed infra on AWS with **99.9% uptime** using Docker Compose and automated deployments

[Jumpcut](#) | Software Engineer 3

September 2018 - April 2020

EdTech startup offering digital marketing and entrepreneurship courses

- Optimized **marketing funnels** reducing drop-off rate from **85% to 62%**, increasing conversion rates by 27% for Google Ads / FB Ads campaigns spending \$100k+/month
- Built **real-time analytics dashboards** tracking funnel progression, user events, and revenue metrics - enabled data-driven decisions **saving \$30k/month**
- Implemented **comprehensive monitoring** with PagerDuty integration and Sentry error tracking - every minute of downtime cost \$500+ in lost conversions
- Contributed to infrastructure migration from 3rd-party tools to in-house solutions - built custom event tracking, migrated to PostgreSQL, **reduced costs by 40%**

Projects

[DeFi Strategies](#) | Solidity (In Progress)

July 2025

- Multi-vault protocol with automated bull / bear / neutral strategies via spot and perps
- ERC4626 implementation with modular architecture, on-chain oracles and cross-protocol yield farming

[Smol DeFi](#) | Solidity

April 2025

- Collection of minimal smart contracts covering core DeFi concepts
- Implemented: Restaking, Lending pools, Flash loans

Arbitrage Bots | Python

February 2025

- Automated trading bots that kept Uniswap pool prices aligned with market index prices on Oyn testnet
- Deployed on GCP Cloud Run to monitor price differences, mint tokens, and execute trades to stabilize pricing

[Portfolio Tracker](#) | NextJS, Tailwind, Supabase

May 2025

- Multi-chain crypto portfolio aggregation solving the pain of tracking holdings across different chains, wallets in a unified dashboard with real-time pricing and P&L analysis

Education

- BE/B.Tech in Computer Science, India (2014 - 2018)