

Ayush Popat

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EDUCATION

The LNM Institute of Information Technology
Bachelor of Technology in Computer Science & Engineering

Jaipur, Rajasthan
Aug. 2023 – May 2027 (*Expected*)

EXPERIENCE

Nebula-Q Protocol (nQ-Swap)

Junior Full-Stack Engineer

May 2026 – Present

TypeScript, Node.js, React

- Implementing authentication systems and contributing to core backend infrastructure for a pre-mainnet high-frequency derivatives protocol; shipping in a fast-moving, engineering-first codebase.

Uniswap Foundation Hook Incubator

Selected Builder, Cohort #9

Apr. 2026 – Jun. 2026

- Building Prism Hook: a Uniswap v4 hook that splits LP positions into LP-Y (zero impermanent loss, pure fee yield) and LP-D (USDC-collateralized IL absorber) ERC-1155 tokens; oracle-free IL computation via the funded-LP formula; automated settlement via Reactive Network RSC; deployed on Unichain Sepolia with 56 Foundry tests at 90%+ branch coverage.

Yellow Network Acceleration Program

Selected Builder

Feb. 2026 – Mar. 2026

- Built and shipped Kartfall to mainnet: a full-stack real-time multiplayer game with a Colyseus backend, React frontend, ERC-7824 state channels for sub-second settlement, and prediction markets. Reached semifinal among top 15 projects in a \$25K prize pool cohort.

Blok Capital

Protocol Cohort, Cohort #1

Feb. 2026 – Mar. 2026

- Completed a competitive engineering program on EVM protocol architecture (EIP-2535 Diamond Proxy, Chainlink CRE, proxy upgrade patterns); contributed a SushiSwap DEX integration facet to the protocol's closed-source Diamond codebase.

Flexzistay

Software Development Intern

Sep. 2025 – Dec. 2025

TypeScript, Next.js, Node.js, PostgreSQL, Prisma, Docker

- Authored 80+ reviewed pull requests across React/Next.js frontend, admin dashboard, and Node.js backend; owned booking and pricing logic end-to-end with deterministic validations and fallback strategies preventing incorrect charges under concurrent load.
- Implemented optimistic concurrency control, refactored media upload pipeline, wrote Jest unit tests for critical paths, built Tailwind CSS component library, and maintained CI/CD via GitHub Actions and Docker.

Afterink Studio

Freelance Full-Stack Developer

Aug. 2025 – Sep. 2025

Next.js, TypeScript, Node.js, REST APIs, Vercel

- Designed and delivered full-stack web applications for multiple clients end-to-end; managed requirements, architecture, REST API integration, and deployment independently.

RESEARCH PUBLICATIONS

InfluenceRank: Trust-Propagated Scholarly Citation Metric | *Springer LNNS, Accepted* SmartCom 2026

- Adapted EigenTrust to citation graphs with exponential time-decay and journal-quartile priors; built a TypeScript ingestion pipeline (OpenAlex API), PostgreSQL/Prisma graph model, and iterative convergence solver; validated on 3,000+ papers and 150,000+ citations.

OPEN SOURCE CONTRIBUTIONS

OpenCut (44,000+ GitHub stars) — Contributed media preview panel, editor UX improvements, and performance fixes in a production React/TypeScript codebase; independently navigated a large unfamiliar repo and shipped through thorough maintainer review.

Jenkins (next-executions-plugin) — Built parameter-aware next-execution tooling with extensible column architecture; merged PRs #195, #199, #200 after full review cycle.

libp2p (js-libp2p) — Added resilient dial fallback to peer routing with test coverage. PR #3367.

PROJECTS

- Prism Hook** | *Solidity, Uniswap v4, ERC-1155, Foundry, Reactive Network, Next.js, Wagmi v2* – UHI9 2026
- Uniswap v4 hook minting LP-Y (zero IL, pure fee yield) and LP-D (USDC-collateralized IL absorber) ERC-1155 tokens on every LP deposit; oracle-free IL via funded-LP formula; automated settlement via Reactive Network RSC; 56 Foundry tests at 90%+ branch coverage; deployed on Unichain Sepolia with Next.js 14 + Wagmi v2 + RainbowKit frontend.
- StrategyForge** | *Next.js, TypeScript, Node.js, MongoDB, LLM APIs, REST APIs* – ETHGlobal OpenAgents 20262026
- Full-stack multi-agent platform with a 3-step attested reasoning pipeline (Researcher → Strategist → Critic), structured agent memory with failure context extraction, self-evolving workflows, Node.js REST API backend, and on-chain attestation registry. strategyforge.ayush.works
- OhMySwarm** | *Next.js, Node.js, LangGraph, Aave V3, x402, Solidity* 2026
- Autonomous agent execution system with LangGraph multi-agent coordination, Node.js orchestration backend, per-invocation x402 USDC micropayment authorization, and AES-encrypted session memory. ohmyswarm.vercel.app
- WandryFi** | *Next.js, Express.js, Solidity, ERC-721* – **Monad Blitz 1st Place, \$500** Aug. 2025
- Travel-to-earn dApp with Next.js frontend, Express.js REST API, off-chain journey verification, relayer-backed gasless transactions, and ERC-721 NFT rewards. wandry-fi-monad-hack-omega.vercel.app
- Commit Protocol** | *Next.js, Node.js, Gemini AI, PostgreSQL, REST APIs, Solidity* 2025
- Full-stack escrow system with an LLM-powered milestone validator (Gemini AI), Node.js REST API backend, Foundry-tested smart contracts, and Discord.js notifications. mnee-commit.vercel.app
- OpenHacks** | *Next.js, Node.js, Azure SQL, MongoDB, Docker, Prisma* – **Synaphack 3.0, 5th Place** Jun. 2025
- Hackathon management platform with hybrid relational + NoSQL architecture, RBAC, judging dashboard, and on-demand certificate generation; top 5 of 850+ participants.

TECHNICAL SKILLS

Languages: TypeScript, JavaScript, Python, Solidity, Java, C, SQL
Frontend: React, Next.js, Tailwind CSS, HTML5/CSS3, Vite, Wagmi v2, RainbowKit
Backend: Node.js, Express.js, REST APIs, Authentication, Concurrency, Jest, Data Pipelines
Data & DevOps: PostgreSQL, MongoDB, Prisma ORM, Firebase, Docker, GitHub Actions, CI/CD, Vercel
Blockchain: Solidity, Foundry, Hardhat, OpenZeppelin, Uniswap v4 Hooks, EIP-2535 Diamond Proxy, ERC-20/721/1155/7824, Chainlink, Reactive Network, The Graph
AI & Agents: LangGraph multi-agent orchestration, LLM API integration, Prompt Engineering, Gemini AI, OpenAI-compatible APIs

ACHIEVEMENTS

Springer LNNS InfluenceRank accepted at SmartCom 2026 | Uniswap Hook Incubator Cohort #9 selected builder (Apr 2026) | Yellow Network semifinalist, top 15, \$25K prize pool (2026) | Monad Blitz 1st place, \$500 prize (Aug 2025) | Synaphack 3.0 5th place, top 0.5% of 850+ (Aug 2025)