

Akshay Dahiya

PROTOCOL ENGINEER

✉ Email | 📁 Portfolio | 🌐 GitHub | in LinkedIn | 🐦 Twitter | 📠 Telegram | India (UTC +5:30)

PROFESSIONAL SUMMARY

Protocol engineer with 15+ years of software development experience, including 6+ years in blockchain and web3 infrastructure. Core expertise spans smart contract engineering, tokenomics design, gasless relayers, decentralized data systems, and high-throughput API architecture. Proven track record building production systems that power DeFi protocols, serving 3M+ daily requests.

Seeking Protocol Engineer related roles focused on DeFi infrastructure, prediction markets, data indexing, or protocol development.

KEY ACHIEVEMENTS

- **800 ETH raised + 5,300+ SBT mints** via Snapshotter Node contracts
- **1M+ gasless transactions** sponsored through EIP-712 relayers
- **Full protocol lifecycle** — led engineering from PoC → 3 testnets → Mainnet V1 → V2
- **Onchain Points + Prediction Markets** — auto-resolving markets on live protocol data
- **70+ audited smart contracts** deployed across EVM chains including Play-to-Earn, MEV-resistant vaults, and cross-chain bridges
- **3M+ daily API requests** served; reduced latency by 80% through optimization
- **2 ACM publications** featured in Forbes; built counter-plagiarism AI (2M+ exam pairs) still in production at Georgia Tech
- **1,000+ students mentored** and **2,000+ projects reviewed** across Udacity, 4-year GSoC Admin, and 5+ ETHGlobal hackathons

TECHNICAL SKILLS

Languages	Python (14 yrs), JavaScript/Node.js (5 yrs), Solidity (6 yrs)
Protocol & Tokenomics	Protocol Design, Game Theory, Consensus, Staking/Slashing, Tax Curves, Airdrops, Sybil Resistance, Incentivized Testnets, Emission Schedules, Delegation, Incentive Alignment
Smart Contracts	Upgradeable Proxies, EIP-712, Gasless Relayers, VRF, Oracles, ERC20/721/1155, Audited Code, SBTs
Decentralized Systems	Snapshotter Networks, Sequencers, IPFS/Data Availability, Prediction Markets, Points Systems, Agentic AI
Backend & DevOps	Linux/Shell, Docker, K8s, CI/CD, AWS, Redis, PostgreSQL, High-Throughput APIs
Web3 Tooling	Hardhat, Foundry, Ethers.js, Web3.py, IPFS, Data Indexing, Chainlink
AI/ML	PyTorch, TensorFlow, LLMs, Reinforcement Learning, Computer Vision
Frontend	React, Next.js

PROFESSIONAL EXPERIENCE

Lead Protocol Engineer & DeFi Researcher

Dec 2022 - Present

POWERLOOM PROTOCOL

Remote

- Co-designed core protocol evolution from V0 → V1 → V2 → DSV architecture
- Engineered Snapshotter node registry contracts, securing **5,300+ nodes** and **800 ETH** raised
- Designed **Powerloom protocol contracts**, staking modules, and airdrop mechanics
- Built high-throughput **EIP-712 relayers** ensuring gasless txs for **1M+ interactions**
- Developed **Onchain Points** and Generative Prediction Markets using live protocol data
- Led engineering for **3 incentivized testnets** with partners like CoinList, Polygon zkEVM, and Socket
- Single-handedly shipped **BDS (Blockchain Data Services)**: decentralized real-time Uniswap data with IPFS proofs

Blockchain Developer

Dec 2020 - Nov 2022

INDEPENDENT CONTRACTOR

Remote

- Delivered **50+ audited smart contracts** across EVM chains, prioritizing gas optimization
- Architected complex tokens (ERC-20/721/1155) with deflationary and dynamic reward logic
- Built DeFi protocols including MEV-resistant vaults and automated referral systems
- Developed automated trading infrastructure using Web3.py and Solidity for NFTs and ERC20 tokens
- Engineered Play-to-Earn ecosystems integrated with Chainlink VRF and cross-chain bridges

Senior Software Engineer

Mar 2020 - Dec 2022

HYPERSONIX INC.

Remote

- Engineered high-availability **API Gateway** scaling to **3M+ daily requests** for enterprise data
- Optimizing API latency by **80%** using Brotli compression and query tuning
- Implemented enterprise auth with Auth0 (SSO, OAuth 2.0) to secure sensitive endpoints
- Deployed comprehensive ELK observability stack for real-time monitoring

Graduate Programmer

Jun 2018 - Nov 2018

FIDELITY INTERNATIONAL

Bangalore, India

- Built real-time survey platform using WebSockets, Django, Redis, and D3.js
- Developed React-based analytical tools for behavioral finance portfolio managers

Technical Mentor & Project Reviewer

Feb 2017 - Mar 2020

UDACITY

Remote

- Reviewed **2,000+ technical projects** across Full Stack and AI nanodegrees
- Mentored **500+ students** globally through code reviews and debugging sessions

Open Source Contributor & Admin

Feb 2018 - Aug 2021

GOOGLE SUMMER OF CODE — HYDRA ECOSYSTEM

Remote

- Core contributor to Hydra Ecosystem — framework for smart, self-describing Web APIs
- Served as GSoC Admin/Mentor (2018–2021), guiding **10+ contributors** on open-source tooling

EDUCATION

Master of Science in Computer Science — Machine Learning Specialization

2019 - 2021

GEORGIA INSTITUTE OF TECHNOLOGY

Atlanta, GA

- Research: Built **Examinator** (ML plagiarism detection) and **JackMarker**; published 2 ACM papers
- Coursework: Machine Learning, Reinforcement Learning, Computer Vision, AI, Graduate Algorithms

Nanodegree Certifications

2016 - 2020

UDACITY

Online

- **Deep Learning & Computer Vision (2020)**: Neural networks with PyTorch — CNNs, RNNs, LSTMs, GANs
- **React (2017)**: 3 full-stack apps with Redux — MyReads, Would You Rather, Mobile Flashcards
- **Full Stack (2016)**: PostgreSQL, RESTful APIs, OAuth, AWS deployment

Open Courseware Foundations

2015 - 2019

MIT OCW / EDX

Online

- **Algorithms (MIT 6.006 / Stanford CS161)**: Heaps, BSTs, graph algorithms, dynamic programming, NP-completeness
- **MIT 6.042J**: Discrete math — proofs, graph theory, probability
- **Berkeley CS188**: AI fundamentals — search, MDPs, reinforcement learning, Q-learning

PUBLICATIONS

Research featured in [Forbes](#) and [Times Higher Education](#). Systems remain in production at Georgia Tech.

1. Dahiya, A., et al. **JackMarker with GitDown: A Framework to Counter Plagiarism at Scale**

ACM Learning @ Scale 2021. DOI: [10.1145/3430895.3460982](https://doi.org/10.1145/3430895.3460982)

2. Apoorv, R., Dahiya, A., et al. **Examinator: A Plagiarism Detection Tool for Take-Home Exams**

ACM Learning @ Scale 2020. DOI: [10.1145/3386527.3406723](https://doi.org/10.1145/3386527.3406723)

OPEN SOURCE WORK

Powerloom Protocol — Core protocol infrastructure for decentralized data markets: github.com/powerloom

Onchain Points & GPM — Points ecosystem and Generative Prediction Markets: github.com/Onchainpoints

Hydra Ecosystem — Linked Data framework for semantic Web APIs (GSoC 2018–2021): github.com/HTTP-APIs