Shishir Pai

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Experience

AI Platform Engineer Sep 2026 – Present
Neurable *Boston, MA*
- Built a proprietary-context engine for AI agents with **role-based access control** and routing restricted to LLM providers with **zero data retention** backing
- Developing company-specific **agent harnesses** and AI-driven workflows to improve engineering efficiency
- Developing **self-improving context and agents** for internal engineering workflows

Founding Engineer May 2023 – Aug 2026
ZenGate Global *Osaka | Remote*
- Built blockchain-based commodity traceability platform, securing over **1M** USD in funding
- Developed **smart contracts**, **TypeScript** libraries, and high-throughput bots handling **100s** of tx/day
- Built decentralized token yield platform, totaling over **1.5M** USD in Total Value Locked
- Designed a **Merkle-trie oracle** scaling on-chain data feeds from hundreds of data points to over **100 billion** via a fixed-size on-chain root with off-chain proof serving (**Go**, actor model, Postgres, IPFS)
- Designed the **offline-first sync architecture** for field clients on poor connectivity

Co-Founder & Lead Developer Jul 2023 – Aug 2026
Phoenix Finance *Remote*
- Designed, tested, and deployed smart contract enabling secure fund storage, peaking $375,000 TVL
- **Fixed** critical security vulnerability exploited by a whitehat who drained **$90,000**; added 50+ full-coverage tests

System Architect & Smart Contract Engineer June 2022 – Feb 2023
Capsule *Boston, MA*
- Designed the publication framework that cut on-chain transaction costs by **10x**; drove contract scalability testing for **10,000+** concurrent users

Education

University of Massachusetts Amherst Amherst, MA
Bachelor of Science in Computer Science; Minor in Mathematics; GPA: 3.85

Projects

Supership | *Python, LLM Harness* Jul 2026
- Built an **LLM workflow harness** with explicit Python control flow for clarification, planning, implementation, review, and consolidation
- Built parallel multi-model review with **evidence-backed verification**, LLM triage, and gated automated fixes
- Implemented dual-model **adversarial planning**, resumable runs, and provider **load balancing**

ashmaize-eval | *Go* Jul 2026
- Built a coding-agent **evaluation harness**: agents implement a proof-of-work VM from a specification in offline containers; scored exact outputs against a **reference oracle** across **100 scenarios**

Nocturne Mining Network | *Rust, TypeScript, Hono, Cloudflare Workers, Drizzle ORM* Nov 2025
- Architected a serverless **TypeScript** backend processing **331 million** requests in 11 days; utilized **Cloudflare Hyperdrive** and **Drizzle ORM** to manage connection pooling for high-concurrency PostgreSQL writes
- Engineered a multi-threaded **Rust** mining client downloaded **50,000+** times, achieving a peak network hashrate of **328 MH/s**, equivalent to the compute power of ∼**36,000** M4 Macs
- Scaled infrastructure to verify **25M** cryptographic solutions from **14,000+** active machines with zero downtime, implementing a custom JWT authentication flow and Redis-like KV caching strategies

ErgPy | *Python* April 2022
- Python library for building Ergo transactions; used by a developer community of 300+

Achievements

Hackathons Nov 2022 | Mar 2024
- Won Ergo Hackathon: smart contracts for a blockchain DNS enabling human-readable payments
- Won Alephium Hackathon: on-chain game with thorough end-to-end tests

Northwestern Trading Competition Oct 2024
- Placed **3rd** for highest P&L in a simulated HFT environment

Technical Skills

Languages: Python, TypeScript, JavaScript, Go, Rust, SQL
Frameworks & Infrastructure: React, Next.js, FastAPI, Hono, Cloudflare Workers, PostgreSQL, Docker, Linux, GitHub CI/CD
AI Engineering: Agent harnesses, context engineering, LLM evaluation, multi-model orchestration