VIRAJ BHARTIYA

Mumbai, India — (+91) 84858 37871 — vlbhartiya@gmail.com
linkedin.com/in/viraj-bhartiya — virajbhartiya.com — github.com/virajbhartiya

PROFESSIONAL SUMMARY

Systems-oriented backend engineer working on distributed infrastructure, blockchain systems, and open-source tooling. Experience building fault-tolerant services, developer SDKs, and production observability pipelines in Go, Rust, and TypeScript.

ACHIEVEMENTS

- Winner — **Smart India Hackathon 2025**, Ministry of Railways.
- Winner — **ETHIndia 2024**, Walrus (Sui) Track.
- Winner — **Unfold 2024**, awarded by **Nethermind**, **CoinDCX (Okto)**, and **Rabble**.
- Won **Best Software Track** at **Prakalpa 2024** for a verifiable compute network protocol.
- Presented Filecoin-based *PDP Client* at Filecoin Dev Summit 2025.

EDUCATION

B.Tech in Computer Engineering, K.J. Somaiya College of Engineering, Mumbai *Expected Sept 2027*

WORK EXPERIENCE

Software Engineer, SatsTerminal *2026 – Present*

- Built backend SDK enabling non-custodial borrowing of USDC against BTC collateral.
- Worked on AMM-style swap primitives aligned with Canton's institutional-grade DLT used by financial institutions and consortium networks.

Open Source Engineer, Protocol Labs *Sept 2024 – Present*

- Built RPC extensions, proof validation logic, and distributed indexing for Filecoin tooling.
- Designed *PDP Explorer* in Go with fault-tolerant execution.
- Extended Synapse SDK to support deal orchestration across TypeScript clients used in production.

Founding Engineer, TopClub *Jan 2024 – Sept 2024*

- Architected backend enforcing **sub-300ms p95** responses on AWS Lambda.
- Built real-time sync for Flutter and React clients with concurrent update handling.

TECHNICAL PROJECTS

Parity Protocol github.com/theblitlabs/parity-protocol

- Designed a decentralized protocol for verifiable distributed compute with sandboxed execution.
- Executed workloads across **20+ Docker-isolated nodes** with deterministic output matching and modular verification.
- Supported LLM inference and federated learning workloads with task-level fault isolation and replayability.

Cognia: Unified AI Memory Infrastructure github.com/cogniahq/cognia

- Built unified memory layer combining PostgreSQL, Qdrant (vector search), and Redis.
- Achieved **sub-500ms end-to-end retrieval latency** for contextual memory queries.
- Implemented deterministic context injection enabling reliable cross-session LLM recall.

Raft Consensus Implementation github.com/virajbhartiya/raftokay

- Implemented Raft leader election, log replication, and quorum-based safety guarantees.
- Tested crash recovery and re-election across **3–7 node clusters** under partitions.

MapReduce Engine github.com/virajbhartiya/map-reduce

- Built master–worker execution achieving **3.2× speedup** over single-node runs.
- Implemented recovery from **4/7 node failures** without data loss.

TECHNICAL SKILLS

- **Languages:** Go, Rust, TypeScript, Python, Dart
- **Backend & Infra:** Node.js, PostgreSQL, Redis, gRPC, Docker, AWS, Firebase
- **Systems:** Distributed Systems, Consensus, Concurrency, Observability