

Abhinav Ashish

Founding Backend Engineer

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PROFESSIONAL SUMMARY

- ▶ Founding Engineer at an early-stage startup, owning end-to-end architecture, development, and deployment of chain-agnostic crypto-forensics software. Hands-on experience in blockchain node infrastructure, building scalable backend systems in Golang (Go), and shipping production-grade systems in fast-paced, high-ownership environments. Strong focus on reliability, performance.

EDUCATION

- ▶ **Future Institute of Engineering and Management** 2020 – 2024
B.Tech in Computer Science and Engineering CGPA: 8.5

WORK EXPERIENCE

- **Sr. Software Engineer** (Jan 2025 – Present)
 - **Hornet Decentrates Pvt. Ltd., Kolkata**
 - ▶ Led deployment and maintenance of **10+ blockchain full nodes** (UTXO and account-based) to support internal analytics, monitoring, and forensic workloads, improving data freshness and system reliability.
 - ▶ Migrated the access-control system from a **user-level hierarchy to an organization-level multi-tenant model** with subscription tiers and feature-based permissions, enabling onboarding of **enterprise and law-enforcement clients**.
 - ▶ Implemented end-to-end **observability and alerting** using **Prometheus, Grafana, and Uptime**, reducing mean time to detect (MTTD) incidents by **70%** and improving system uptime.
 - ▶ Optimized the internal **dark-web intelligence engine**, improving live result fetch latency by **75%** and increasing signal accuracy through better indexing and filtering logic.
 - ▶ Introduced **multi-layer caching** across backend microservices (Redis + in-memory), reducing redundant computation and cutting average API response time by **40%** under high concurrency.
 - ▶ Standardized **infrastructure setup and recovery processes** for blockchain nodes and backend services, improving reliability and consistency during deployments.
- **Software Engineer** (Jul 2024 – Jan 2025)
 - **Hornet Decentrates Pvt. Ltd., Kolkata**
 - ▶ Designed and implemented **secure authentication and session-management services** in Go, supporting role-based access and handling **thousands of authenticated requests per day**.
 - ▶ Architected backend support for **user hierarchies, roles, and access-control schemas**, forming the foundation for later enterprise-grade multi-tenancy.
 - ▶ Integrated **TOR-based live dark-web crawling** in Golang, enabling real-time discovery and filtering of 'onion' sources for investigative intelligence workflows.
 - ▶ Integrated multiple **OSINT data sources** (leak databases, reputation services, and watchlists) to automate enrichment of intelligence reports, reducing manual analyst effort by **60%**.

TECHNICAL AND SOFT SKILLS

- **Programming & Databases:** Go (Golang), Python, PostgreSQL, Redis, Neo4j
- **Backend & Systems:** Linux (Ubuntu), RESTful API design, caching strategies, service automation, cron-based scheduling
- **DevOps & Observability:** Monitoring and alerting (Prometheus, Grafana, Uptime Kuma), load balancing, backup and recovery
- **Blockchain & Intelligence Tools:** Blockchain nodes, crypto analytics platforms, OSINT and dark-web intelligence tooling
- **Soft Skills:** Ownership, problem solving, technical mentoring, cross-functional collaboration

SECURITY & RESEARCH EXPERTISE

- **Systems & Blockchain:** Computer Networks, Operating Systems, DBMS, Blockchain Architecture and Applications
- **Cyber Threat Intelligence:** OSINT, Dark Web Analytics, TOR fundamentals, threat hunting workflows
- **Cybersecurity:** Network security, vulnerability analysis, secure and privacy-preserving systems
- **Golang for Security:** High-performance backends, concurrency (goroutines), network scanners, protocol parsers

RESEARCH WORK

- **B2RAM: Design and Practical Implementation of a Secured Information Management Framework for Dynamic Resource Allocation Using a Novel 2-Tier Blockchain Model**
Submitted to Elsevier (ScienceDirect), currently under review. [↗](#)