

EDUCATION

Shri G. S. Institute of Technology & Science, Indore
B.Tech (Mechanical) | Minor: Machine Learning, CGPA: 7.75/10

Indore, MP
 Sept 2023 – July 2027

OPEN SOURCE SYSTEMS

- rust-lightning (LDK)** | *Rust, CI/CD, Fuzzing*
Jan 2026 – Present
- Resolved flaky CI failures caused by non-deterministic test behavior in Bitcoin integration pipeline ([PR #4499](#)).
 - Architected cross-version serialization coverage for the chanmon_consistency fuzzer ([PR #4622](#)) using isolated multi-version dependencies (lightning_0.2) to validate ChannelMonitor compatibility layers.
 - Engineered state-shifting base-6 encoding logic to allow independent reload strategy evaluation for concurrent channel monitors during mid-fuzz node restarts, uncovering state asymmetries upstream.
 - Eliminated Linux kernel OOM-killer premature terminations by optimizing serialization logic ([PR #4478](#)) and deploying automated resource-cleanup hooks, dropping pipeline downtime by 15%.

PROJECTS

- YES - MP Govt. Wellness Platform** | *Flutter, Node.js, PostgreSQL — [\[PlayStore App Link\]](#)*
Sept 2025 – Oct 2025
- Built backend for 5k concurrent users; fixed race conditions in booking system via PostgreSQL row-level locking.
 - Migrated MongoDB to PostgreSQL to support complex relational scheduling, reducing data inconsistency during peak load.
 - Executed stress testing using K6 to trace bottleneck conditions; established sub-100ms P95 latency thresholds and profiling pipelines under sustained synthetic traffic.
- Project SENTINEL: xAI for AML** | *Neo4j, FastAPI, PyTorch — [Live Demo](#) | [GitHub](#)*
Jan 2026 – Feb 2026
- Built GNN-based pipeline (GCN) for AML detection; identified anomalous transaction clusters in 1M+ graph records.
 - Developed explainability layer via SHAP to provide feature-level transparency for security analysts reviewing flagged cases.

EXPERIENCE

- System Analyst Intern**
Nov 2025 – Feb 2026
- Dept. of Labour, Govt. of MP | Client: MPSEDC*
Indore, India; Onsite
- Fixed critical wage-tracking flaws in attendance modules during UAT for the e-SAHAYAK mobile app launch.
 - Audited data parity during staging-to-production deployment for the Sambal 2.0 initiative to ensure record integrity.
- Founding Engineering Intern**
Aug 2025 – Sept 2025
- Heizen (Titan Capital-backed Startup)*
Remote
- Built 0-to-1 full-stack prototypes for 3 enterprise clients; navigated technical ambiguity to deliver initial production MVPs.
- Research Intern – Distributed Systems**
May 2025 – Aug 2025
- ABV-IIITM Gwalior | C3iHub, IIT Kanpur*
Gwalior, India; Onsite
- Built HIPAA-compliant Federated Learning pipeline using Hyperledger Fabric and PyTorch for secure data training.
- Data Infrastructure Intern**
Sept 2025 – Nov 2025
- CytoScan Intelligence Technologies Pvt Ltd*
Remote/Chennai
- Optimized data loaders to reduce BraTS MRI training latency; normalized voxel intensity across 1,250+ patient records.

TECHNICAL SKILLS

- Systems, Networks & Core CS:** Computer Networks (TCP/IP, OSI Architecture), Operating Systems, DBMS
- Programming Languages:** C++, Python, Rust, C, Bash (Scripting), Java, JavaScript (ES6+)
- Infra, Observability & Tooling:** Linux (Ubuntu/CentOS), Git, GitHub Actions (CI/CD), AWS, OCI, K6 (SRE/Stress Testing)

COMPETITIVE ACHIEVEMENTS

- ACM ICPC Regionalist: Rank 12 at Mysore On-site Regionals 2025** Popped 4 algorithmic problems.
- Summer of Bitcoin 2026 Qualifier:** Selected among global applicants to contribute to Bitcoin’s core open-source infrastructure.
- CP Stats:** **CodeChef 4-Star** (Max: 1814), **LeetCode** (Max: 1997, 911+ Qs.), **Codeforces Specialist** (Max: 1539), and **Atcoder Kyu7** (Max: 641)
- All India finalists** (top 5 out of 1200+) in the MP Police CIIS Hackathon for building GNN-based AML Algorithm. [Demo](#) | [GH](#)
- Top **0.60%** (25/4000+) in [TruthTell Hackathon 2025](#); Top **0.66%** (550/90K+) in [Adobe India Hackathon 2025](#)
- Top **0.87%** (497/57,000+) in NationBuilding Case Study.; Top **3.8%** (312/8000+) in GSSoC 2024.

EXTRACURRICULAR LEADERSHIP

- Placement Coordinator:** Led 30+ drives and workshops, bridging student preparation with industry standards.
- AlgoZenith Lead & CodeFoster President:** Led coding contests, problem setting, and workshops for 500+ members.

CERTIFICATIONS

- Oracle OCI:** [AI Foundations Associate](#), [GenAI Professional](#)
- NPTEL:** [DBMS](#), [DS](#), [ML](#), [AI](#), [Python](#)