

Education

2021-2025 B.Tech. in Industrial & Systems Engineering - Indian Institute of Technology, Kharagpur
CGPA 8.46

Experience

- Software Engineering Intern | AWSMO Apr '24 - Present
 - Streamlined ML workflow, achieving 55% faster execution & 50% greater scalability with AWS Batch & CloudFormation
 - Enhanced deployment efficiency by 100% through CI/CD pipelines and unit tests covering ~80% of the code base
 - Identified 17 bottlenecks across all services via a benchmarking framework written in Golang, Python, and Terraform
 - Optimized time series data parsing by 40% by implementing efficient business logic in the Django REST Framework
 - Reduced service downtime by 30% via post-deployment health checks & rollback mechanisms in deployment pipelines

Projects

- Naarad | Golang, Python Jun '24 - Jul '24
 - Deployed a student-run noticeboard service for IIT Kharagpur community, serving over 7000 daily active users
 - Managed deployment on Digital Ocean with Docker, leveraging GitHub Actions for CI/CD, scaling for over 15,000 users
 - Reduced unauthorized access attempts by 30%; OTP and nginx rules restrict only sign-up/sign-in to the campus network
 - Integrated with MFTP, delivering students real-time placement portal notices, with a delivery delay of under 3 minutes
- ApnaInsti | Django, AWS Jan '24 - Feb '24
 - Published an official mobile app for IIT KGP, increasing student involvement by 30% in institute-organized activities
 - Orchestrated deployment on AWS EC2, utilizing CodeDeploy & CodePipeline, scaled for 10,000+ users with AWS ECS
 - Designed travel share and buy/sell portal; spearheaded a team of 10 developers, developing in Django and React Native
 - Engineered a real-time scoreboard feature, serving 5000+ concurrent users, using Golang, PostgreSQL & WebSockets
- Metahub | C, Bash, Linux Utilities Jan '23 - May '23
 - Revamped a PtokaX-based P2P file-sharing service exclusive to IIT Kharagpur, catering 50TB+ of content to 800+ users
 - Resolved compilation errors & a ban functionality bug, increasing server stability by 30% & ensuring a smooth installation
 - Engineered automation & monitoring scripts, & set up fallback for uninterrupted server availability, ensuring 95% up-time
- GSYNC | Bash, Linux Utilities Apr '22 - May '22
 - Developed a CLI tool for real-time file & folder synchronization from local to remote git repositories, with 100% efficiency
 - Implemented 8 service functionalities - start, stop, status, restart, enable, & disable, with innovative selective start/stop
 - Elevated user experience by 40% with intuitive logs management and troubleshooting, with support for macOS and Linux

Achievements

- Inter-IIT Tech Meet 12.0 | Contingent Gold Nov '23 - Dec '23
 - Secured first place for the third consecutive time, contributing to cloud architecture, blockchain, and backend tech stack
 - Patched 2 Aptos library bugs & designed a novel Metamask Snap allowing transacting Aptos coin via Metamask Wallet

Positions of Responsibility

- Maintainer | Metakgp, IIT Kharagpur Aug '23 - Present
 - Developed and maintained over 20 open-source projects for IIT Kharagpur students, easing out various stressful processes
 - Published IQPS, a Golang, PostgreSQL, and Svelte app, hosting 500+ question papers over 19 years with vector search
 - Deployed Kronos, a web app in Python that collects and analyzes 12,500+ records, providing detailed grade distributions
- Advisor, FOSS United Club Lead | Kharagpur Open Source Society, IIT Kharagpur May '22 - Present
 - Organised over 15 workshops, promoting and advocating the adoption of open-source software amongst the students
 - Organised Kharagpur Winter of Code-('22 and '23), inspired by Google Summer of Code, with 1.2k+ and 2.5k+ participants
- Technology Coordinator | Technology Students' Gymkhana, IIT Kharagpur Jul '23 - Jul '24
 - Oversaw technological advancements at IIT Kharagpur; assisted in resolving over 200 student complaints every month
 - Achieved a 90% reduction in site build size by migrating static data to PostgreSQL using efficient Python & Bash scripts
 - Migrated from AWS to on-premise server; leveraged Proxmox for 3-layered system design and novel CI/CD pipelines

Technical Skills

Languages	Python, Golang, Bash, TypeScript, JavaScript
Frameworks	Django, Flask, Go-Fiber, Node.js, Metamask Snaps
DBMS	PostgreSQL, MongoDB, MySQL
DevOps	Networking, Linux Administration, Docker, Nginx, Apache Web Server, Cloudflare, Terraform, Amazon Web Services (AWS), Digital Ocean (DO), Jenkins, Argo CD, YAML, GitHub Actions