

Education

| | |
|-----------|--|
| 2021-2025 | B.Tech. in <i>Industrial & Systems Engineering</i> - Indian Institute of Technology, Kharagpur |
| CGPA | 8.40 |

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
 - Enhanced log analysis efficiency by 90% by self-hosting a distributed logging architecture using the ELK/EFK stack

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, Bash, Golang, TypeScript, JavaScript |
| Frameworks | Django, Flask, Go-Fiber, Express.js |
| DBMS | PostgreSQL, MongoDB, MySQL |
| DevOps | Networking, Linux Administration, Docker, Nginx, Cloudflare, Terraform, Amazon Web Services (AWS), Jenkins, Argo CD, GitHub Actions, EFK/ELK (Elasticsearch, Filebeat/Logstash, Kibana) |