Chirag Ghosh

Education

Indian Institute of Technology Kharagpur

Kharagpur, India

B. Tech, Computer Science and Engineering (CGPA: 9.12/10)

2020 - 2024

Internship

American Express (India) Private Limited

Bengaluru, India

Software Engineer III

June 2024 - Present

- Modernized a legacy Spring Boot application using Autowiring and OpenTelemetry for modularity and observability.
- Containerized the app and built a CI/CD pipeline using **GitHub Actions** for seamless deployment to OpenShift Hydra.
- Switched runtime to GraalVM, reducing memory footprint, and integrated Kafka Queues for reliable load handling.
- Managed a SonarQube DataCenter cluster used by 18k+ developers; maintained its Jenkins and GHA-based pipelines.
- Built a CI/CD pipeline using **Terraform**, **ArgoCD**, and **AWS EKS** for ephemeral application deployment and testing.

Technology Intern

May 2023 - July 2023

- Built an interactive and drilled-down dashboard in Grafana to visualize test tool usage data stored in Elastic Stack.
- Resolved issues in Jenkins-to-ELK pipeline comprising **Groovy** and **MongoDB**, improving data accuracy and visibility.

Mello

Bengaluru, India

March 2022 - June 2022

- $Front end\ Developer\ Intern$
 - Developed a React Native app and React admin dashboard, integrating reels and live classes via Mux and 100ms.
 - Migrated from CRA/Webpack to Vite + ESBuild, improving reload speed and reducing development resource usage.

Projects

BeSafe (B.Tech Project)

August 2023 - May 2024

- Designed a personality-based game to help victims of **Intimate Partner Violence** recognize and address digital abuse.
- Deployed different versions of the game on AWS and Vercel; designed a custom survey to measure the game impact.
- Conducted pilot user interviews and authored a thesis with evaluations and case studies on existing solutions of IPV.

OPSA May 2024

- Built a Slack archive viewer with Golang, Rust, and HTMX to access workspace messages and files hidden in free plan.
- Implemented OAuth, full-text search and infinite scrolling to enable seamless exploration of years of message history.

Competitions

- Represented IIT Kharagpur in the Gold-winning team at Digital Alpha's SEC filing analysis in Inter-IIT Tech Meet.
- Smart India Hackathon '22 winner built an interactive dashboard for UGC legal team in under 36 hours.
- Won Gold in Photostory and Filmmaking event of Inter-IIT Cultural Meet 5.0 as part of IIT Kharagpur contingent.

Technical Skills

Programming & Scripting Languages:
Frontend Frameworks & Tools:

Frontend Frameworks & Tools: Backend Frameworks & Databases:

Platforms & Other Tools:

Java, JavaScript, Typescript, Golang, Python, Sass, C/C++, Bash ReactJS, React Native, NextJS, Elastic Stack, Astro, Vite, HTMX Node.js, Express, Selenium, Playwright, PostgreSQL, MongoDB, MySQL

Linux, Github, Jenkins, Docker, Nginx, Terraform, ArgoCD, AWS, Grafana

Voluntary Contributions

Kharagpur Open Source Society

Executive Head Jun 2021 - Present

- Led Kharagpur Winter of Code (KWoC), a flagship month-long program to promote open-source development.
- KWoC 2022 had 1500+ regular participants, 60+ open-source projects, and 500k+ lines of code contributed.
- Organised hands-on workshops on Git/Github, Linux shell scripting, Python, GSoC for students of IIT Kharagpur.

Open-Source Contributions

• Contributed and Maintained key projects under the Metakgp umbrella such as IQPS, Naarad, Heimdall and Chillzone.