Chirag Ghosh

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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 I — *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.
- Migrated 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

Frontend Developer Intern — *March 2022 – June 2022*

- 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 Qualtrics 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:	Java, JavaScript, Typescript, Golang, Python, Sass, C/C++, Bash
Frontend Frameworks & Tools:	ReactJS, React Native, NextJS, Elastic Stack, Astro, Vite, HTMX
Backend Frameworks & Databases:	Node.js, Express, Selenium, Playwright, PostgreSQL, MongoDB, MySQL
Platforms & Other Tools:	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.