

# Chirag Ghosh

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## Education

### Indian Institute of Technology Kharagpur

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

Kharagpur, India

2020 – 2024

## Certifications

- **Google Cloud:** Associate Cloud Engineer [ [Verification](#) ]
- **Linux Foundation:** Certified Kubernetes Application Developer [ [Verification](#) ]

## Experience

### 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.
- Architected Kubernetes-based container orchestration and CI/CD using GitHub Actions, ensuring seamless deployment.
- 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.
- Implemented IaC using Terraform and ArgoCD to provision ephemeral deployments in EKS, improving resource efficiency

#### 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.

### 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.

## Technical Skills

### Programming & Scripting Languages:

Java, JavaScript, Typescript, Golang, Python, Bash

### Frameworks & Databases:

ReactJS, NextJS, HTMX, Node.js, Express, Selenium, PostgreSQL, MongoDB

### Cloud & Infrastructure:

AWS, GCP, Kubernetes, Helm Charts, Terraform, ArgoCD, Docker

### CICD & Observability:

GitHub Actions, Jenkins, Git, Grafana, Elastic Stack (ELK), Opentelemetry

## 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.

## 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**.