

Supratik Das

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EDUCATION

IIT ROORKEE

BTECH IN ELECTRONICS AND
COMMUNICATION ENGINEERING
Junior Year
Expected May 2021

COURSEWORK

UNDERGRADUATE

Computer Networks
Data Structures and Algorithms
Object-Oriented Programming
Digital Logic Design
Computer Architecture and
Microprocessors

SKILLS

LANGUAGES

Golang • Javascript/Typescript • Python •
Rust • Java • C • C++ • PHP • SQL • Bash

TECHNOLOGIES

Node.JS • Django • Spring/Spring Boot •
Microservices Architecture • MVC
Architecture • ReactJS • VueJS •
Network Security • Docker • Kubernetes

ACHIEVEMENTS

INTER-IIT TECH MEET 2019

- Gold Medalist (Coding Hackathon).

D3CODE HACKATHON 2019

- Overall winners among all teams.

CISCO CTF 2019

- Stood 3th among all individual participants from India.

HAB59 HACKATHON 2020

- Lead and mentored the team into gaining the 1st position.

BRAINWAVES CTF 2019

- Stood 4th among all the participating teams from India.

SYNTAX ERROR 2018

- Won the Hasura sponsored prize.

OPEN SOURCE

CLOUD NATIVE BUILDPACKS

- Developed a buildpacks registry.

OWASP JUICE SHOP

- Developed security challenges embedded in the web-app.

REFERENCES

BJOERN KIMMINICH

OWASP Juice Shop Project Leader
bjorn.kimminich@owasp.org

EXPERIENCE

GOOGLE SUMMER OF CODE (WITH CD FOUNDATION IN SCREWDRIIVER.CD)

| 1ST JUNE 2020 - 31ST AUG 2020

- Incorporated the generation and use of deploy keys in the pipeline building flow.
- Added support for handling webhooks from external SCM repositories and selectively choosing pipeline jobs.

AMERICAN EXPRESS | 27TH MAY 2020 - 6TH JULY 2020

- Worked on developing service classes for microservices with datastore interaction.
- Proposed a new testing framework Groovy as a replacement for JUnit.
- Developed a code-crawler application as a part of internal hackathon with performance enhancements using multithreading and effective use of LRU caches.

BOLO (NEWTON SCHOOL) | 20TH MAY 2019 - 20TH JUL 2019

- Developed a cloud recording microservice for a peer-to-peer WebRTC session.
- Developed a chat infrastructure service which uses Socket.IO and FCM. Used NodeJS's Cluster library for concurrent multiple socket management.

PROJECTS

GASPER | INTRA CAMPUS DEPLOYMENT SERVICES

- SWS is a tool modelled as PaaS, for deploying and scaling web applications.
- Developed the core deployment pipeline for databases and apps.
- Developed a container metrics exporter and collector with a visualizer.

KATANA | CLOUD BASED ATTACK DEFENCE CTF PLATFORM

- Katana is an attack defence CTF platform with the infrastructure based on Kubernetes. Designed the complete architecture.
- Developed a CLI tool with VM deployer microservice with Firecracker based microVMs and challenge deployment pipelines.

PORTKEY | QUIC+WEBRTC BASED P2P FILE TRANSFER

- Worked on developing a P2P file transfer tool with webRTC over QUIC protocol.
- Implemented file chunking and multi-stream transmission.

ACCOUNTS | OAUTH-2 AUTHENTICATION SYSTEM

- Accounts is an in-house multi-provider OAuth-2 based authentication framework.
- Worked on improving the OAuth flow and security auditing and developed a Golang based OAuth-2 Client for use as middlewares.

MUZI | MUSIC STREAMING WEB APPLICATION

- Developed a song-downloader pipeline, implementing a queue using the Redis framework and a rest server in Flask. Added features to the ReactJS based UI.

SOCIETIES AND GROUPS

SDSLABS | JOINT SECRETARY

- Regularly conducted hackathons, public lectures, and competitions to foster the technical culture on the campus and mentored freshmen and sophomore students.
- Responsible for maintaining current applications and server managements.

INFOSEC IITR | SENIOR MEMBER

- Active member and CTF player of InfoSec IITR team, with focus in web security
- Created challenges for cybersecurity competitions aimed at freshmen.
- Involved in organizing meetings and workshops related to information security.