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Academics

2017-2022 | B.Tech + M.Tech (Dual Degree) in Computer Science and Engineering, IIT Kharagpur

GPA **8.66**/10.0 (Ongoing)

Experience

May '21 | Backend Intern: Mercari

- Worked under Master team responsible for migration of monolith Mercari HTTP architecture into gRPC microservices to optimize load-cost, decouple independent services, and increase maintainability.

- In line with Mercari's culture of end to end ownership - designed, developed, test, deployed, and setup monitoring for created gRPC endpoints using *Telepresence*, *Datadog*, GCR, GKE, etc.

May '20 FullStack Intern: Skillbee IPI Connect

Skillbee, Noida

Tokyo, Japan

Jul '20 - Refactored methods and data structures by analyzing Node heap usage pattern to reduce memory footprint.

- Fabricated architecture and implemented *fan-out on write* global and *fan-out on read* personal activity feed using *Stream Framework* and *Elasticsearch* respectively - reducing avg. feed generation time from 4 secs to 300 ms.

May 19 | Student Software Developer: Sample Platform

CCExtractor, Google Summer of Code 2019

- Implemented code sanity checking mechanisms, increase unit-test coverage from 60.2% to 90.1%, implemented database migration methods and improved time estimation algorithm's accuracy with DB schema modification.

Backend Engineering Intern: Income Tax Filing Tool

ClearTax, Bangalore

Jul 19 - Updated ITR-2, ITR-3 and ITR-4 filing to 2018-19 fiscal-year schema while retaining backward compatibility.

- Improved DevOps using IIS Manager, Scalyr, Spinnaker and TensorFlow (with OpenCV and Keras) to setup up better logging, improved automation and Income Tax Department's captcha solver (achieving 94.3% accuracy).

Dec 18 | Sofware Engineering Intern: VWO

Wingify, New Delhi

Jan 19 - Dockerised core components of VWO reducing migration and production setup time roughly by 80%.

- Optimized data queries and reliability with UX changes reducing the campaign creation dropout rate by 30%.

May 18 | Student Software Developer: Project Nephos

CCExtractor, Google Summer Of Code 2018

Aug 18 - Authored head-less tool to automate recording, processing and uploading IPTV streams for University Of Nevarra,

Spain and others - increasing throughput by over 400+% with no human intervention required to handle failures.

Projects

May 19

• CareShare, Lead Developer

Developed at Zealth-AI (under Antler and YC-W21), a platform for remote monitoring and diagnosis of Covid-19 & Cancer patients with multi-lingual support. The product was pilot tested at 50+ hospitals including PGI Rohtak and AIIMS.

• CloudCron, Polyglot.Network

Software as a Service (SaaS) platform to ease the setting up and execution of cron-tasks; developer with stack comprising of GCP (AppEngine, CloudSQL, PubSub, CloudScheduler), Python, PostgreSQL, Kubernetes API and more.

• DigiCon, OpenSoft 2018 IIT Kharagpur

Gold winning entry to the Inter-Hall Opensoft, IIT Kharagpur; generates digital prescription from doctor's handwritten.

• ConnectAll, Hack-A-BIT 2019

Developed in 36 hours, ConnectAll is a platform that enables specially-abled to easily interact with conventional tech.

Technical Skills

Languages
Data Storage / Handling
Sys Admin / Technologies

JavaScript (Node.js), Python, C#, Golang, PHP, Java, Ruby MySQL, SQLite, MongoDB, PostgreSQL, Elasticsearch

Docker, GraphQL, gRPC, Nginx, Prometheus, Grafana, Terraform, Kubernetes

Activities & Leadership

- OpenSource Involvement: Mentored Make SwagLyrics Great Again and Sample Platform in GSoC 2020 and GSoC 2021, and high school students for GCI 2018 and GCI 2019 under CCExtractor, top mentor for GirlScript Summer of Code (GSSoC) 2018 and SoI 2019, IIT Dharwad. I've successfully conducted Kharagpur Winter of Code 2018, GSSoC 2019, and GSSoC 2020.
- InfoSec, Inter IIT Tech Meet: 1st position (among 22 sister IITs) in Saptang Lab's Network Security Hackathon and 4th position in Payatu's Jeopardy Style CTF respectively in Inter IIT Tech 9.0 (IIT Guwahati) and Inter IIT Tech 8.0 (IIT Roorkee).
- Head of Technology, IIT Technology Ambit: Lead a team of 6 developers to provide sustainable and easy-to-maintain services for digital distribution with complete open-source solutions, estimated to serve 2000+ users on monthly basis.
- Maintainer, MetaKGP IIT Kharagpur | Executive Member, KOSS IIT Kharagpur: Responsible for promoting and maintaining open-source culture and tools (campus-centric) such as knowledge wiki, APIs, timetable manager, scrappers and bots.