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Shivam Kumar Jha

Academics

Bangalore, India

2022 *B.Tech + M.Tech (Dual Degree)* in **Computer Science and Engineering, IIT Kharagpur** with **8.7/10.0** GPA *With Micro-Specialization In Entrepreneurship And Innovation*

Experience

May '21 | Software Engineer: User-Master Team

Mercari, Tokyo

Jun '22

- Designed process for migration of the monolith Mercari REST APIs (PHP) serving master data into gRPC microservice (Golang) to optimize infra-cost, decouple independent data, and increase maintainability.
- Designed & developed i18n middle-ware for Mercari's microservices-kit, reduced engineering hours for client-config updates to 0 from 4hrs/week and refactored the microservices' code to improve extensibility.
- In line with OpenSource culture, improved org-wide documentation for QA, release processes, and decommissioning micro-services; optimizing costs (2M Yen/Annum) and improving production-release speed and security.

May '20

FullStack Intern: Skillbee IPI Connect

Skillbee, Noida

- Jul '20 Identified and optimized memory-leak by analyzing NodeJS heap usage pattern to achieve five-nines availability.
 - Co-created 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, increased unit-test coverage from 60.2% to 90.1%, implemented database migration methods and improved time estimation algorithm's accuracy with DB schema modification.
- May 19 | 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 | FullStack Intern: VWO

Wingify, New Delhi

Jan 19 - Dockerised (from Vagrant) components of VWO reducing cloud migration and production setup time by 80%.

- Optimized data queries and reliability with UX changes reducing the campaign creation dropout rate by 30%.
- May 18 Aug 18

Student Software Developer: Project Nephos

CCExtractor, Google Summer Of Code 2018

- 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

• CareShare, Lead Developer

Developed at Zealth-AI (YC-W21), a platform (in TypeScript) for remote monitoring and diagnosis of Covid-19 & Cancer patients with i18n support. The product was pilot tested at 50+ hospitals including *PGI Rohtak* and *AIIMS*.

CloudCron, Polyglot.Network

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

• ConnectAll, Hack-A-BIT 2019

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

• DigiCon, OpenSoft 2018 IIT Kharagpur

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

Activities & Leadership

- Office Setup, Mercari India: Streamlined targeting of hiring process & referral campaign, improved employer branding initiatives, and lead technology meet-up sponsorships for setting up Center of Excellence in Bangalore, India for Mercari, JP.
- OpenSource Involvement: Mentored Make SwagLyrics Great Again and Sample Platform in GSoC 2020 and GSoC 2021-2022, 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 of content with 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.