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Shivam Kumar Jha

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BRH Hall of Residence, IIT Kharagpur West Bengal, India - 721302

"It is easier to ask for forgiveness, than permission."

Academics

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

GPA | 8.54
Technical Skills

Systems / Platforms

Languages DBMS Node.JS, GoLang, PHP, C#, Python, Java

MySQL, SQLite, MongoDB, PostgreSQL Docker, GCP, Spinnaker, Kubernetes

Experience

May 19

SE Intern: Income Tax Filing Tool

8.54/10.0 (Ongoing)

ClearTax, Bangalore

July 19

- Updated stale data in micro-services and API data-layers and synchronized Income Tax filing for different groups of tax payers with Income Tax Department's new schema for 2018 fiscal-year Year End Tax filing while retaining backward compatibility.
- Reached a record filing rate of 100+ filings/day for NRIs with only 2% bounce rate due to exceptions.
- 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 (94.3% accuracy).
- Enabled A/B testing with GTM and Google Optimize; orchestrated Retool tools for marketing-sales department.

May 18

Student Developer: Project Nephos

CCExtractor, Google Summer Of Code 2018

- Authored CLI to automate recording, processing and uploading IPTV streams for University Of Nevarra, Spain.
- Worked extensively with error handling, database management, remote server operations, FTP handling in Python,

scheduling, modular configuration implementation, extensive logging and DRY methods.

Dec 18 Jan 19 SE Intern: VWO

Wingify, New Delhi

- Dockerised core components of VWO to facilitate easy migration and production setup.

- Optimized data queries and improved reliability along with UI fixes in VWO Dashboard, written using AngularJS.

Projects

• CloudCron, Co-Founder

Software as a Service (SaaS) platform to ease the setting up and execution of cron-tasks; led the tech-team with stack comprising of Google Cloud Platform, Python, PostgreSQL and Kubernetes API. Under GCP, AppEngine for hosting and managing application versions, CloudSQL as remote database, PubSub for instant communication between microservices and CloudScheduler for running periodic tasks.

Sample-Platform, Google Summer of Code 2019

Continuous Integration platform for CCExtractor's principal repository: improved the code sanity checking mechanisms through mypy, dodgy and other tools, increased unit-test coverage from 60.2% to 90+%, setup database migration methods, improved file comparison algorithms, implemented parallel running of tasks, and more.

IIT Technology Ambit, Head Of Technology

A magazine start-up delivering latest research and incubation digest right from IITs. Leading a team of 6 developers to provide sustainable and easy-to-maintain services for digital distribution with complete open-source solutions.

Messiah, Microsoft CodeFunDo++ 2018

Service to predict magnitude of Earthquake using Tensorflow: web-app optimization leading to 230% lesser loading time. Upscaled and improved version bagged runners up under open category in Streethack Blockhack.

Activities & Leadership

- Students' Technology Coordinator, Technology Gymkhana, IIT Kharagpur: The highest nominated technical position in the institute; responsible for GymKhana website maintenance, Institute's app development, students' grievance portal, etc. The website uses PHP as the core language along with integration of WordPress blogging; serving crucial information, blog posts and updates to 10,000+ students and faculty members.
- **Student Speaker, Pragma IIIT Allahabad**: Had the opportunity to share my experience regarding efficient methods of planning, programming for perpetual processes, avoiding overhead maintenance costs and denial of service.
- OpenSource Involvement: Mentored high school students for GCI 2018 under CCExtractor, top mentor for GSSoC 2018 and SoI 2019, IIT Dharwad. I've successfully conducted (as a organizing cum web team member) GirlScript Summer of Code 2019 and Kharagpur Winter of Code 2018, among 25 volunteers selected from nationwide colleges for Codepreneur week 2019.
- 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, services, scrappers and bots.