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Shivam Kumar Jha

BRH Hall of Residence, IIT Kharagpur WestBengal, India - 721302

Academics

2017-2022 GPA

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

8.54/10.0 (Ongoing)

Experience

May 19 | Backend Engineering Intern: Income Tax Filing Tool

ClearTax, Bangalore

July 19

- Updated stale data in micro-services and API data-layers and synchronized ITR-2, ITR-3 and ITR-4 filing with Income Tax Department's new schema for 2018 fiscal-year ITR filing 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 (94.3% accuracy).
- Enabled A/B testing with GTM and Google Optimize; orchestrated Retool tools for marketing-sales department.

May 19

Student 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' accuracy with DB schema modification.
- Improved regression testing and file diff algorithms, parallelized working of Kernel Virtual Machines to run multiple platforms in concurrency and curated automation scripts for updating test files and outputs.

May 18

Student Developer: Project Nephos

CCExtractor, Google Summer Of Code 2018

- Aug 18 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

Sofware Engineering 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 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; parses doctor's handwriting with character recognition.

• 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.

Technical Skills

Languages

Node.js, Python, JavaScript, C, Golang, Python, Java, PHP, C, C++

Libraries / Frameworks

OpenCV, .NET Core, Xamarin

DBMS

 ${\sf SQLite, MongoDB, PostgreSQL, MySQL}$

Systems / Platforms

Docker, Vagrant, Heroku, Azure, GCP

Web Technologies

Bootstrap, Flask, Django, ASP.NET, ReactJS, AngularJS, REST, GraphQL, Nginx

Activities & Leadership

- **Head of Technology, IIT Technology Ambit**: 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, estimated to serve 2000+ users at launch.
- **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.
- **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.
- Facilitator, Google Explore ML Academy: Selected as a student facilitator under Google Explore ML Program to learn, practice, teach and prepare ML enthusiasts on Campus and National Level.
- 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.