IIT Mandi
Himachal Pradesh, India
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Yash Agrawal

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WORK EXPERIENCE

Software Engineer   **Microsoft IDC Bangalore, India**   **July 2020 - Present**

- Handled migration of API calls from one service to another with concept of flighting key, pagination and lazy loading. Owing to appreciable contribution to previous team, received an exciting opportunity to be part of the first few members of the newly established API designing team at Microsoft IDC Bangalore.
- Added support for filter on membership roles in List Team Members API which now entertains more than 25k requests on membership role filters per day in production. Constructed logic for query parsing in expression tree using visitor pattern. The change has improved the overall request execution time and the response consistency.
- Designed Request to add members APIs, one of the prominent customers ask that enables callers to submit and process join membership requests of users in a private team using graph APIs.
- Backend engineer owning Microsoft Teams Graph responsible for end-to-end tests, supporting livesite, deployment process and maintaining service reliability, serving data to customers with comprehensive compliance auditing and telemetry.

Software Engineer Intern   **Microsoft IDC Bangalore, India**   **June 2019 - August 2019**

- Created a standalone tool that enables Microsoft developers to submit a job using a UI built over chrome extension which generates synthetic data. Daemon scripts running in distributed systems constantly look for new jobs from database and when the job gets completed, a notification is sent to the user using SMTP server.

EDUCATION

Indian Institute of Technology Mandi   **Himachal Pradesh, India**   **Aug 2016 – Jun 2020**

- **B.Tech in Computer Science and Engineering, CGPA: 8.38**
- **Relevant Coursework:** Advanced data structures and algorithms, Special topics in compiler design, Paradigms of programming, Software Design Patterns, Systems Practicum, Pattern Recognition, Deep Learning and Applications, Artificial Intelligence, Introduction to communicating distributed processes, Information and Database Systems,
- **Teaching Assistant :** Programming and Data Structure Practicum, Communicating distributed processes, Data science lab.
- **Programming Club Coordinator of the institute** for the academic year 2018 - 2019.

LANGUAGES AND TECHNOLOGIES

- **Programming Languages:** (Most experience) C, C++, C# .net core, Python, (some experience) Javascript, Android, Java, PHP.
- **IDEs and frameworks:** MySQL, Apache Hadoop, Kafka, Spark, Nginx, Docker, Tensorflow, Keras, Flex, JavaCC/JTB.

PROJECTS

- **Pictorial :** Participated in Microsoft Global Hackathon 2k21 and volunteered to lead the project, making it to top 10 selected projects out of 1.5k projects across all over India. Designed a tool to generate voice and animation using a text and an image, in order to mock a real-life delivery of content to consumers which enables virtual delivery of speech by a person without being present. *(First-order-motion model, Google TTS library, GAN model, LRS2 dataset)*
- **Hosting student projects using docker :** Generated a script which was able to host new projects in docker containers. Docker swarm used for dynamic scaling of docker containers. Load tested using Apache JMeter.*(Docker, Load distribution)*
- **Cricket Commentary Generation :** Generated commentary of cricket video using different networks : scene segmentation, SSD, classifiers for annotating batsman and bowler name and shot played using convLSTM. *(Python, Keras, cv2)*
- **Content curation and report generation :** A software to extract user's domain specific and relevant contents from various internet sources from input keywords and merging the curated contents into one preserving its overall relevancy and the semantics.*(Google CSE, NLP, Python Flask, Text extraction, Web Scraping, Docker)*
- **SearchGuru:** Designed a webapp to scrape data dynamically from websites of different institutes (IITs). The data extracted from the websites is contact details of all the professors among all the IITs. *(MongoDB, Node JS, Express JS, Angular JS)*
- **Library Assistant Bot (LAB) :** The aim of the project was to help library workers in arranging returned books by scanning the book using image processing and follow the path that maps to the location of the book in the shelf. *(Raspberry, Arduino)*

AWARDS

- **ACM-ICPC 2019 :** Represented IIT Mandi at the ACM ICPC India regionals 2019 securing 27th rank in kharagpur regionals.
- **ACM-ICPC 2018 :** Secured 277th, 496th rank among 4401, 2946 teams in ICPC 2019, 2018 Online Round respectively.
- **TopCoder - Algorithm Round (IIT Mandi) :** Secured 11th rank in IIT Mandi.
- **Exodia Line Follower Event :** Represented IIT Mandi in Exodia 2k18 securing 1st rank in Line Follower Competition.
- **Inter IIT Sports Meet** Represented IIT Mandi in 52nd, 53rd, 54th Inter IIT Sports Meet.