

EDUCATION

Indian Institute of Technology Mandi

Himachal Pradesh, India

Aug 2016 – Jun 2020

- **B.Tech in Computer Science and Engineering, CGPA: 8.36 (Till 5th SEM)**
- **Relevant Coursework:** Paradigms of programming, Software Design Patterns, Systems Practicum, Deep Learning and Applications, Artificial Intelligence, Pattern Recognition, Introduction to communicating distributed processes, Computer Organization, Information and Database Systems, Advanced data structures and algorithms
- **Teaching Assistant :** Programming and Data Structure Practicum, Data Science, Introduction to communicating distributed processes.
- **Programming Club Coordinator of the institute** for the academic year 2018 - 2019.

WORK EXPERIENCE

Software Engineer, Intern

Microsoft IDC Bangalore, India

June 2019 - August 2019

- Created a synthetic data generation tool that trigger the webapp (MS teams) in different scenarios and generates the data. The tool is built on following technologies : Python, Javascript, Selenium, Chrome Extension, Postman, Azure Server, REST API, SMTP server, Database Server, Object oriented programming.
- Javascript used to convert the data from extension into json format and make a POST request to the flask server deployed on azure. Daemon scripts are running in distributed systems and constantly checking for new jobs from the database.
- Microsoft developers can use the chrome extension to submit a job which will generate the data. Database is used to make the data persistent and multiple jobs can run at the same time.

LANGUAGES AND TECHNOLOGIES

- **Programming Languages:** C, C++, Java, Python, Android, Javascript, PHP, Scala.
- **IDEs and frameworks:** MySQL, IntelliJ Idea, Apache Hadoop, Kafka, Spark, Nginx, Docker, Tensorflow, Keras.

PROJECTS

- **Cricket Commentary Generation using Deep Learning :** Generated commentary of the given cricket video using following different networks : scene segmentation, SSD (Single Shot multibox Detector), classifiers for annotating batsman and bowler name and shot played by the batsman using conv LSTM. (*Python, Keras, cv2*)
- **Hosting student projects using docker :** Bash script created through which students of IIT Mandi can host new projects in docker containers. Docker swarm used for dynamic scaling of docker containers. Load tested using Apache JMeter. Using VM, setup different docker container for different components. (*Docker, Virtual Machine*)
- **SearchGuru:** Developed a webapp which scraps data dynamically from the websites of different institutes (IITs). The data extracted from the websites is contact details, address, experience, skills, accomplishments of all the professors among all the IITs. (*MongoDB, Node JS, Express JS, Angular JS*)
- **CodeManiac - Online Judge :** Developed an online Judge where user can code, solve, choose programming language and submit code. To make the data persistent MySQL database is used. The website features live rank lists, users submission history and statistics showing user performance. (*PHP, MySQL, C++, HTML, CSS*)
- **Library Assistant Bot (LAB) :** The aim of the project is to help library workers in arranging the return books. The bot scans the book using image processing to get the bar code which maps to the location of the book in the shelf. According to location the bot will follow that particular line using a line follower mechanism. (*Raspbian OS, Arduino, IR sensors, i2c*)
- **Anugami - Human Following Bot :** Created a human following robot which follows user using the GPS of the smartphone. GPS Signals from the phone being converted into respective Latitudes and longitudes. Further the distance moved and angle rotated is calculated with the help of mobile inbuilt magnetic motion sensors. (*Android, Java, Arduino, Bluetooth Module, GPS*)

AWARDS

- **ACM-ICPC 2018 :** Secured 496th rank among 2946 teams in ACM ICPC 2017 Online Round.
- **TopCoder - Algorithm Round (IIT Mandi) :** Secured overall 11th rank in IIT Mandi.
- **Exodia Line Follower Event :** Represented IIT Mandi in Exodia 2k18 securing 1st rank in Line Follower Competition.
- **RoboGolf Event :** Secured Rank 3rd in IIT Mandi.
- **Inter IIT Sports Meet** Represented IIT Mandi in 52nd Inter IIT Sports Meet