Ayush Singh

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EDUCATION

National Institute of Technology, Agartala.

August 2018 – May 2022

Bachelor of Technology (Electrical Engineering)

9.35/10 CGPA

EXPERIENCE

SDE-Intern | Tookitaki, Singapore.

October 2020 - January 2021

Spark, ActiveMQ, JMS, Scala, MySQL

- Developed a JMS-Client, from scratch, to fetch messages from an ActiveMQ-Broker with low latency (<0.01 sec) and enhanced security (AMQP authentication).
- Successfully managed to embedd the JMS-Client in a Spark-Structured-Streaming application, with client-side message recovery system.

SDE-Intern | Excain LLP, India.

July 2020 – September 2020

Microsoft Azure, OpenCV, REST APIs

- Created a filter with OpenCV to segregate and highlight textual-data in an image.
- · Developed an OCR model API that could transform handwritten text to digital text for further NLP tasks.

Web Developer | Developers Club, NIT-A.

March, 2020 – June, 2020

NodeJS, ReactJS, JavaScript, Firebase

- Worked on the development and deployment of full-stack web application "IIIT-Agartala"
- Created the backend of several pages, embedded authentication mechanism to the website, and resolved issues causing the site crashes elevating uptime to 99.99%

TECHNICAL SKILLS

Languages: Python, C++, Scala, Java, MATLAB and JavaScript.

Libraries and Tools: ActiveMQ, Spark, Kafka, ReactJS, Node.js, Express, MongoDB, Django, SQL, PyTorch, FastAPI, Firebase, GIT, ROS and Tensorflow.

Software Packages: Docker, Postman, Jupyter Notebook, Simulink, VS Code, Adobe Photoshop, Android-Studio, Vim, UNIX.

PROJECTS

Autonomous Robot | Tensorflow, OpenCV, Keras, Raspberry-Pi

https://youtu.be/0Fff2ncdbPo

- Developed an autonomous robot which can navigate itself in any environment using Computer-Vision.
- The robot uses onboard Raspberry-Pi to process the data received from various sensors (including onboard camera).

LinkinJMS | Spark, Scala, JMS, ActiveMQ

https://github.com/WinterSoldier13/linkinJMS

- Developed an application, from scratch, to connect and fetch messages from ActiveMQ broker with low latency (<0.01 sec) and enhanced AMQP security.
- The application also supports writing messages to the topic/queue of the ActiveMQ.

Professor-Mirror | *NodeJS*, *JavaScript*, *Firebase*, *MongoDB*

https://github.com/WinterSoldier13/professorMirror

- Worked on the backend for an application where the students can rate their professors on several parameters such as Research, Course-Material, Interaction with students, etc.
- The app uses MongoDB for persistent storage, and Firebase to store details about the users and facilitate authentication with email.

ACHIEVEMENTS

- -> Worldwide *Rank of 776* on InterviewBit (in DSA).
- -> Institute *Rank 1* on GeeksForGeeks (among 1,180) with a worldwide *Rank 76* (among 50,000+) in Algorithms.
- -> One among the 50 students selected from all across India, for Google-ExploreML 2019.
- -> Selected as the *Lead* of Google Developer Students Club, NIT-A 2020-21.
- -> One among the 11 students selected for the prestigious Indian Academy of Sciences: FASTSF Fellowship 2021.