ROUNAK SARAF

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EDUCATION

Indraprastha Institute of Information Technology, Delhi

New Delhi, Delhi, India

Bachelor's of Technology / Electronics and Communications Engineering

May, 2022

 GPA - 8.3, Coursework - Data Structures & Algorithms, AI, ML, NLP, Computer Networks, Operating Systems, Database Management Systems, Engineering Design, Advanced Programming

WORK EXPERIENCE

Synopsys, Inc.

Bengaluru, Karnataka, India

May, 2021 - October, 2021

Data Engineering Intern

- Web: Created a mailing system to provide instructions to the assigned employee of a JIRA issue for obtaining access to the code base using web scraping and web API mechanisms. Integrated a weekly reminder system.
- Data and Distributed Systems: Programmed a congestion analysis feature running on a distributed compute framework using PySpark and Pandas. Designed the feature determining the density and intersection of two specific IC components in the IC design. Used Convex Hull algorithm for the implementation. Improved the algorithm efficiency by 87%.
- Workflow Management: Created a dependency between the congestion analysis feature added and the system using Apache Airflow reflecting the functionality and conditional inclusion of the feature.

PROJECTS

Personal Portfolio
Self Employed

Kolkata, West Bengal, India

Feb, 2022 - Mar, 2022

• Portfolio Website 💞: Created a fully responsive personal website for showcasing my works, interests, projects, hobbies, academics, contact and portfolio. *Tech Stack used* - HTML, CSS, JavaScript.

React Applications

Kolkata, West Bengal, India

Self Employed

Feb, 2022 - Mar, 2022

- WeatherMan Developed a fully responsive app which displays the real-time temperature, humidity and other meteorological factors of a location given as a query using the openweathermap API.
- Omni-Focus ❖: Developed a fully responsive app which allows any user to create a todo list for self, making changes to the list, adding and deleting items as required. Deployed the application using Heroku.

Tech Stack used - React, CSS, JavaScript, JSX, HTML, API, JSX, Bootstrap, Git, Heroku.

Artificial Intelligence

Undergraduate Researcher

New Delhi, Delhi, India

Aug, 2020 - Dec, 2020

- Career Advisory System 🗸: Designed a system providing the best career options for a student considering students interests, skills and other relevant attributes provided as input by the user.
- Natural Language Interface
 ✓ : Created an interactive user interface for the career advisory system using Natural Language Toolkit (nltk

 ✓).

Natural Language Processing

New Delhi, Delhi, India

Undergraduate Researcher

Aug, 2020 - Dec, 2020

- Twitter Sentiment Analysis System
 <! Led a team of 2 for creating a classification system on sentiments of a tweet. Implemented and compared various computational models on 25 features achieving a maximum accuracy of 78%.
- Viterbi Algorithm ❖ : Implemented the Viterbi algorithm for word-tag definition from scratch. Obtained results for the Bigram and the Trigram model with 87.1% and 89.5% accuracy respectively.

Games and Graphics

New Delhi, Delhi, India

Undergraduate Researcher

Aug, 2019 - Dec, 2019

SKILLS & INTERESTS

Skills: Python, Java, Heroku, Bootstrap, Firebase, Git, HTML, CSS, JavaScript, React, C++, Bash, MySQL, Flask, Rest API, Django, Prolog, C, Spark SQL, PySpark, Pandas, Dask, Scikit-Learn, Scipy, Apache Spark Compute, Linux, Latex, JavaFX, Eagle CAD, Fusion 360, Eclipse, Matlab, Googling, Cisco Packet Tracer.

Interests: I am interested in the fields of Software Development, Data Engineering, Quantitative Analysis. Flexible to work in other fields as well. My interests outside of work include Martial Arts, Sports and Music.

Participated and won in India's biggest Sports Fest in Taekwondo. (Gold Medallist).