



## Dheeraj Chouhan

UG (IV Year I Semester)  
B.Tech. (Civil Engineering)  
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Registration No: 20113049/2024



### Area of Interest

Data Analysis, Data science, Machine Learning Applications, Mathematics & Statistics, Python programming, Management, Operation, ,

### Education

Year	Degree/Examination	Institution/Board	CGPA/Percentage
2023	B.Tech. 3rd Year	Indian Institute of Technology, Roorkee	7.000
2019	Intermediate (Class XII)	Om Vidhya Mandir Ser. Sec. School	81.20 %
2017	Matriculate (Class X)	Rajasthan Public Sec. School	85.17 %

### Internships

#### Data Science | Exposys Data Labs

June 2022 - July 2022

- Worked on ML projects under the mentor's guidance Diabetes Prediction System.
- Analyze diabetes patient data and created new feature for model accuracy.
- Analyze different models for best fit so that it will give better accuracy and less MAE
- Created model for Diabetes Prediction function and improve model accuracy by 20 %

#### Intern | The Spark Foundation

May 2023 - June 2023

- I worked upon stock price prediction using AI project, Gathered and cleaned BSE stock price data from 2010 to 2022. Developed a deep learning (DL) model to predict stock prices using time series analysis and standard algorithms such as LSTM. Trained the model on the historical data and evaluated its performance on a test set.. Achieved a model accuracy of 89% and F1 score of 0.79.

#### Data Analytics & Machine Learning intern | EI Systems

May 2023 - June 2023

- Worked Upon 'world future population prediction' project. Used united nation world population official data for prediction. Performed EDA and used ensemble ML algo for feature selection . Used different forecasting algorithms for best model performance . Achieved 97% model accuracy.

#### Data Science Engineer | Oasis Infobyte

June 2023

- Worked on two pivotal projects. In the "Car Price Prediction" project, I developed a predictive model that utilized car specifications and market data to enhance pricing decisions in the automotive industry. Additionally, in the "Spam Text Detection" project, I built a robust NLP-based classification model to identify and filter spam messages, thereby improving communication and data security.

### Projects

#### Functional Annotation of 16S rRNA using Bioinformatic tools | Department of Civil Engineering, IITR

January 2023 - May 2023

- Utilized Blastn to classify RNA sequences obtained through nanopore sequencing. Identified and analyzed the sequences data available, characterizing microbial species within complex microbiomes. Conducted functional annotation of 16S rRNA data using Picrust. Unveiled insights into the metabolic potential and functional profiles of microbial communities.

#### Movie Recommendation System | Department of Management Studies, IITR

March 2023 - May 2023

- Developed content base movie recommendation system. Cleaned and prepared the data for training by extracting features such as genre, cast, director, and rating. .Used cosine similarity technique for finding similarities between user previous search. Deployed the model on Streamlit, a web framework for building interactive data applications.

#### Highway Asphalt Pavement Degradation Classification using Deep Learning and Computer Vision | Omdena

February 2023 - August 2023

- I worked on an open source project to develop an image classification model to identify the degradation stage of pavement in Nigeria. We used the YOLOv8 model for classification and classified the results based on the percentage of cracks, potholes, ruts, and repairs.

#### Analysis of terrestrial water storage by Python | Department of Civil Engineering, IITR

May 2023 - July 2023

- Developed a graphical user interface (GUI) application for visualizing and analyzing terrestrial water storage data.
- Used NASA GRACE satellite data and Python libraries such as cartopy, shapely, and NetCDF4 to perform the analysis.

#### Analysis of 2D and 3D structures using STAADPro | Department of Civil Engineering, IITR

January 2023 - April 2023

- Performed 2D and 3D frame analysis using STAADPRO software to assess structural integrity and stability in engineering projects. Generated comprehensive reports and design recommendations based on analysis results.

#### Design of two-lane road bridge on Yamuna | Department of Civil Engineering, IITR

July 2023 - Present

- Performed topographical site surveys, soil exploration, and traffic demand calculations, contributing to the planning and design of a road bridge over the Yamuna river in Jalaun District of Uttar Pradesh.

- Create a Application that can analyze WhatsApp chat data by displaying user experience (like most used words/emoji, Daily time spend, most common word used by user etc.).

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## Skills

Computer languages	Python   C++   SQL   MATLAB   HTML
Software Packages	VS code, Blender, Sublime Text, Jupyter Notebook, MS Excel (Advanced), MS Power Point, MS Word, Autocade (Beginner), ArcGIS, ERDAS IMAGINE
Additional Courses	Data Analysis with Python, Neural Network and Deep Learning, SQL for Data science, Foundation: Data, Data Everywhere, Advanced Excel & Financial Calculation, IIRS 'Machine Learning to Deep Learning: A Journey for Remote Sensing Data Classification ' course
Languages Known	English (SRW), Hindi (SRW)

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## Positions of Responsibility & Extra Curriculars

**Executive** | Cognizance

February 2021 - Present

- Worked on a new revenue stream by introducing a new "One Pass all Workshop" Model in Cognizance'22, collaborated with 12+ companies with a total of 1000+ participation.
- Collaborated with 7 companies for Free workshops, in which we witnessed a 300% increase in workshop participation.
- In Cognizance'21 Worked on the "Free Online Workshop Series" to address changes due to the pandemic, collaborated with 9 companies and witness a 300% increase in workshop participation.
- Worked with three executives and 20 +volunteers for cross-functional collaboration of the day to day operations.

**Executive** | Corporate Interactions Group (CIG)

July 2021 - July 2022

- Released one linear related to corporate world.
- Worked on an initiative IPA (Intern and Project for All).
- Part of Event and Content team

**Executive** | National Social Scheme (NSS), IIT Roorkee

June 2021 - May 2022

- Worked in the Management Cell
- Conducted a Webinar during Mental Health Week on "Addressing the mental stress among students during the pandemic"
- Managed other cells work timeliness and work status

**Competitive Programming** | Online Judges

July 2021 - Present

- Active member on Codechef and Codeforces. codeforces-hritvik\_k-highest rating 1461 Solved 1000+ problems on gfg,codeforces ,leetcode,hackerearth,interview-bit

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## References

**Dr Abhishek**

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