Garima Chauhan

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LinkedIn: https://www.linkedin.com/in/garima-chauhan-83b27860/
Github: https://github.com/GarimaChauhan16/
Bio: https://garimachauhan16.github.io/

A mechanical engineering postgraduate from Indian Institute of Technology, Delhi, India having worked for 6 years as Computer Aided Analyst in various automobile Industries across India on individual as well as team projects. Recently graduated from **Data Science bootcamp program** from **Northwestern University Chicago** with technical abilities in advanced **Python programming and web scraping**. Maintains an insatiable curiosity to acquire new skills and tackle challenging tasks.

Technical Skills:

Languages: VBA, Python, R, SQL
Data Manipulation & Visualization: Pandas, Matplotlib, Tableau, HTML/CSS/JavaScript, D3, Plotly, Leaflet
Machine Learning: scikit learn, tensorflow
Database: mySQL, postgeSQL, mongoDB
Other: Git, Flask

Projects:

Pyber | https://github.com/GarimaChauhan16/Pyber

- This project deals with the data of a hypothetical ride sharing company called "Pyber".
- The data contains information about every active driver and historic ride, including details like city, driver count, individual fares, and city type.
- Matplotlib was used to represent the data by building bubble plots and pie charts to showcase the relationships between the key-variables.

Weather Changes | https://github.com/GarimaChauhan16/WeatherPy

- Analyzed changes in weather with respect to distance from the equator.
- Pulled data from OpenWeatherMap API to assemble a dataset on over 500 cities.
- Summary statistics and visualizations created using Python, Pandas, and Matplotlib.

Chicago Housing Prices | https://github.com/GarimaChauhan16/Chicago-Housing-Prices

- Explored the factors influencing housing prices in Chicago. The factors such as number of ammonites, crime rates, poverty, income, short term rentals like Airbnb etc.
- Pulled data from various sources like Kaggle, Zillow, US census website, Yelp.

- Plotted each factor against the median rental values to find out the correlation.
- Performed a multi linear regression analysis to find out how well the housing prices can be explained by each factor by calculating R-square value.

Mission to Mars: https://github.com/GarimaChauhan16/Web-Scraping-and-Document-Databases

- Built a web application that scrapes 5 different websites for data related to the Mission to Mars and displays the information in a single HTML page.
- Created a new database in MongoDB and stored all of the scraped data in it.
- Python Flask was used to create a route to query the database and pass the mars data into an HTML template.
- An HTML file called 'index.html' was created which displays all of the data in HTML elements.

Belly Button Biodiversity: https://github.com/GarimaChauhan16/Plotly--Belly_Button_Biodiversity
https://belly-button-biodiversity-g.herokuapp.com/

- Built a Full-Stack application to build an interactive dashboard exploring the Belly Button Biodiversity Dataset using Plotly.js, Flask and Heroku.
- Using plotly built pie chart and bubble plot to showcase the sample values and labels.
- Built a gauge chart to plot a weekly washing frequencies obtained from the samples.
- Using python flask deployed the app into Heroku.
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CTA Ridership Visualization: https://github.com/GarimaChauhan16/CTA-Ridership-Visualization

- Built a web dashboard which shows a ridership trend for the Chicago Transit Authority (CTA) over the last ten years.
- The data was collected from Chicago Data Portal Website. https://data.cityofchicago.org/
- Used SQL database in Postgres to store the data and created a flask server to load the data into Python.
- Used html, D3, Javascript, Plotly and Leaflet to build final visualization dashboard.

EXPERIENCE

Mercedes Benz Research & Development, India **04/2017-03/2019**
Senior CAE Analyst

- Design Validation, Failure simulation, Test Data correlation, Life cycle calculation for the transmission components of Mercedes Benz and AMG cars.
- Creating and reviewing Analysis reports for the Computer Aided Simulation tasks and suggesting design improvements.
- Training and mentoring new hires with processes and tools.
- Creating Design guidelines and Standard operating procedure documentation.

- Cross department collaboration with design, material, testing teams to resolve open field issues.

Escorts Agri. Machinery, India **12/2014-03/2017**
Manager- Engineering Services

- Design Validation, Failure simulation, Life cycle calculation for the tractor components.
- Collaborating with the testing team for the design validation and test correlation.

Mahindra & Mahindra Ltd., India **08/2012-11/2014**
Deputy Manager- Tractor CAE

- Design Validation, Failure simulation, Life cycle calculation for the tractor components.
- Creating load case documents for the test load conditions.
- Creating design calculators for optimum component designs based on machine design process using Excel and Matlab.

EDUCATION

Northwestern University, Chicago, Illinois
Data Science Bootcamp (2019)

A 24-week intensive program focused on gaining technical programming skills in Excel, VBA, Python, R, JavaScript, SQL Databases, Tableau, Big Data, and Machine Learning.

Indian Institute of Technology, Delhi, India
Master of Technology (2010-2012)
Design Engineering: Department of Applied Mechanics

College of Technology, Pantnagar, India
Bachelor of Technology (2006-2010)
Mechanical Engineering