

# Garima Chauhan

[chauhangarima.786@gmail.com](mailto:chauhangarima.786@gmail.com) | +1-7086547858 | Chicago, IL

LinkedIn: <https://www.linkedin.com/in/garima-chauhan-83b27860/>

Github: <https://github.com/GarimaChauhan16/> | Bio: <https://garimachauhan16.github.io/>

A **Data Science bootcamp graduate** from **Northwestern University Chicago** with technical abilities in advanced **Python programming and web scraping**.

A mechanical engineering postgraduate from Indian Institute of Technology, Delhi, India. Having worked for over 6 years as **Computer Aided Analyst** in various automobile Industries across India on individual as well as team projects, transitioning into **Data Domain** with 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, postgreSQL, 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.

**Belly Button Biodiversity**: [https://github.com/GarimaChauhan16/Plotly--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 frequency obtained from the samples.
- Using python flask deployed the app into Heroku.

**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

2017-2019

#### Senior CAE Analyst

- Design Validation, Failure simulation, Test Data correlation, Life cycle calculation for the transmission components of Mercedes Benz and AMG cars.
- Created and reviewed Analysis reports for the Computer Aided Simulation tasks and suggested design improvements.
- Created Design guidelines and Standard operating procedure documentation.
- Cross department collaboration with design, material, testing teams to resolve open field issues.

### Escorts Agri. Machinery, India

2014-2017

#### Manager- Engineering Services

- Design Validation, Failure simulation, Life cycle calculation for the tractor components.
- Collaborated with the testing team for the design validation and test correlation.
- Trained and mentored new hires with processes and tools.

### Mahindra & Mahindra Ltd., India

2012-2014

#### Deputy Manager- Tractor CAE

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

## Education

### Northwestern University, Chicago, Illinois

#### Data Science Bootcamp

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

Design Engineering: Department of Applied Mechanics

### College of Technology, Pantnagar, India

#### Bachelor of Technology

Mechanical Engineering