

---

# Indranil Chakraborty

111, Jheel Road , Bank Plot, Vivek Nagar, Jadavpur, Kolkata, 24 PGN(S),  
West Bengal, India  
Pin- 700075  
+91 8768337973  
indranilch2014@gmail.com

## SKILLS

### *Programming languages:*

#### **PYTHON 3.9**

##### *Libraries known:*

Numpy, Pandas, Matplotlib, Seaborn, Sklearn, plotly, dash, Folium, Openpyxl, WordCloud, Urllib, Requests, PIL, BeautifulSoup, Math, Cmath, Basemap, Pylab, Scipy, Mpl\_toolkits, graphviz, csv, pydotplus, Sqlite3, Os, NLTK, Tensorflow, Keras, Pyfetch etc.

#### **C, R, MATLAB.**

### *PYTHON IDE's known:*

Jupyter Notebook (Google Colab notebook, Kaggle notebook), Pycharm, VS-code.

### *SQL Databases known:*

Google Bigquery, IBM Db2, MariaDB, MySQL.

### *Data Manipulation and Data Visualization using:*

Python Libraries like matplotlib, seaborn, plotly, dash, etc.,  
Tableau, MS-Excel, Google sheets.

### *Other skills:*

Mathematical functions and Statistics using Python and R, Machine learning in Python,  
Basics of Natural Language Processing and Deep learning in Python (Tensorflow, Keras, NLTK),  
Data structures and algorithms in Python,  
Languages (Read and write): English, Bengali, Hindi.  
MS-Powerpoint, MS-Word, Google-Docs, Google-Slides, Bitpaper, etc.

---

## CERTIFICATIONS

Course title: **Data Science with Python by IBM Skills Network (Coursera.org)**

JUNE 2022 - AUGUST 2022

- <https://www.coursera.org/account/accomplishments/professional-cert/9TSZY9A977CR>

Course title: **Introduction to SQL and Advanced SQL by Kaggle**

AUGUST 2022- SEPTEMBER 2022

- <https://www.kaggle.com/learn/certification/indranilch2014/intro-to-sql>

## EDUCATION

### Indian Institute of Technology, Kharagpur (IIT Kgp)

JULY 2011 - AUGUST 2017

**Bachelor of Science (Honors) and Master of Science in PHYSICS**

CGPA: 7.02

- All india Rank at IIT JEE, 2011: 4023
- State Rank at WBJEE, 2011: 501
- All India Rank at AIEEE, 2011: 2177

### Bodhicarya Senior Secondary School,

**Location: M Ngr Kadampukur 24PGN(N) West Bengal**

**Passed the Senior School Certificate Examination, CBSE ( held in March, 2010)**

Total Score: 83.8%

- English Core(71), Physics(90), Chemistry(95), Mathematics(80)

### Ramakrishna Mission Vidyalaya Narendrapur,

**Location: Kolkata, West Bengal**

**Passed the Secondary Examination, WBBSE ( held in April, 2008)**

Total Score: 86.5%

- English (82), Physical Science (89), Mathematics (94), Computer Applications (94)

---

## PROJECTS

### 1. Description:

*Requesting Rocket Launch data from SpaceX API , decode the response content as a Json using .json() and turn it into a Pandas dataframe using .json\_normalize() and then performing some data Wrangling on the requested data.*

#### Link:

<https://github.com/indranilch2014/Capstone-Project-coursera-week1/blob/main/jupyter-labs-spacex-data-collection-api11.ipynb>

### 2. Description:

*Webscraping Falcon 9 launch records with BeautifulSoup. Then extracting a Falcon 9 launch records HTML table from Wikipedia and the parsing the table and converting it into a Pandas data frame*

#### Link:

<https://github.com/indranilch2014/Capstone-Project-coursera-week1/blob/main/jupyter-labs-webscraping11.ipynb>

### 3. Description:

*Performing some Exploratory Data Analysis (EDA) to find some patterns in the SpaceX Launch data and determining what would be the label for training supervised models.*

#### Link:

<https://github.com/indranilch2014/Capstone-Project-coursera-week1/blob/main/labs-jupyter-spacex-Data%20Wrangling11.ipynb>

### 4. Description:

*Performing some Exploratory Data Analysis (EDA) to find some patterns in the SpaceX Launch data and determining what would be the label for training supervised models.*

#### Link:

<https://github.com/indranilch2014/Capstone-Project-coursera-week1/blob/main/labs-jupyter-spacex-Data%20Wrangling11.ipynb>

### 5. Description:

*Using Folium to find some geographical patterns about the launch sites, marking all launch sites and also the success/failed launches for each site on the map and then Calculating and showing the distances between a launch site to its proximities on the map*

#### Link:

[https://github.com/indranilch2014/Capstone-project-SpaceX/blob/main/lab\\_jupyter\\_launch\\_site\\_location11.ipynb](https://github.com/indranilch2014/Capstone-project-SpaceX/blob/main/lab_jupyter_launch_site_location11.ipynb)

---

## 6. Description:

*Loading the SpaceX dataset into the corresponding table in an IBM Db2 database and executing SQL queries on the stored dataset using sqlite3 and establishing a connection to the database.*

**Link:**

[https://github.com/indranilch2014/Capstone-project-SpaceX/blob/main/jupyter-labs-eda-sql-coursera\\_sqlite1.ipynb](https://github.com/indranilch2014/Capstone-project-SpaceX/blob/main/jupyter-labs-eda-sql-coursera_sqlite1.ipynb)

## 7. Description:

*Performing exploratory Data Analysis and Feature Engineering using Pandas and Matplotlib on the SpaceX data*

**Link:**<https://github.com/indranilch2014/Capstone-project-SpaceX/blob/main/jupyter-labs-eda-dataviz11.ipynb>

## 8. Description:

- *Building a interactive dashboard using Plotly and Dash in Python on the detailed launch records of the SpaceX data*

**Link:** [https://github.com/indranilch2014/Capstone-project-SpaceX/blob/main/plotly\\_dash.py](https://github.com/indranilch2014/Capstone-project-SpaceX/blob/main/plotly_dash.py)

- Data visualization of Titanic dataset from Kaggle using Tableau interactive Dashboards

**Link:** [https://public.tableau.com/app/profile/indranil.chakraborty5263/viz/titanic\\_train\\_viz1/Dashboard1](https://public.tableau.com/app/profile/indranil.chakraborty5263/viz/titanic_train_viz1/Dashboard1)

## 9. Description:

*Creating plots and charts using plotly.graph\_objects and plotly.express.*

**Link:** [https://github.com/indranilch2014/testrepo2/blob/main/4.3\\_Plotly\\_Basics.ipynb](https://github.com/indranilch2014/testrepo2/blob/main/4.3_Plotly_Basics.ipynb)

## 10. Description:

- *Performing exploratory Data Analysis and determining Training Labels and creating a column for the class, Standardizing the data, Splitting the data into training data and test data. Finding the best Hyperparameter for Support Vector Machines, Classification Trees and Logistic Regression and to find which method performs best using test data*

**Link:** <https://github.com/indranilch2014/testrepo2/blob/main/Machine-learning-prediction.ipynb>

- *Applying more classification algorithms like K-nearest neighbor, Decision tree, Support vector machines, and also performing data preprocessing, data visualization, one-hot encoding, feature selection, on loan\_train.csv and testing these machine learning algorithms on loan\_test.csv.*

**Link:** <https://github.com/indranilch2014/testrepo2/blob/main/ML0101EN-Proj-Loan-py-v11.ipynb>

---

### 11. Description:

*Visualizing data using Pandas and Matplotlib and creating Waffle charts, word clouds and Regression plots using Seaborn library.*

**Link:**

[https://github.com/indranilch2014/More\\_projects1/blob/main/DV0101EN\\_Exercise\\_Waffle\\_Charts\\_Word\\_Clouds\\_and\\_Regression\\_Plots\\_\(1\).ipynb](https://github.com/indranilch2014/More_projects1/blob/main/DV0101EN_Exercise_Waffle_Charts_Word_Clouds_and_Regression_Plots_(1).ipynb)

### 12. Description:

*Applying Descriptive and Inferential Statistical concepts using Matplotlib, Seaborn, Numpy, Scipy and Math libraries in Python.*

**Link:** [https://github.com/indranilch2014/More\\_projects1/blob/main/Satistics\\_python1.ipynb](https://github.com/indranilch2014/More_projects1/blob/main/Satistics_python1.ipynb)

### 13. Description:

*Using Os and google.cloud libraries in Python to establish a connection to Google bigquery using API key and using this API client object to run SQL queries.*

**Link:** [https://github.com/indranilch2014/More\\_projects1/blob/main/bigquery\\_connect\\_1.ipynb](https://github.com/indranilch2014/More_projects1/blob/main/bigquery_connect_1.ipynb)

## GITHUB LINKs for more Projects:

- [https://github.com/indranilch2014/More\\_projects1](https://github.com/indranilch2014/More_projects1)
- <https://github.com/indranilch2014>

## Strengths

**Positive Attitude:** To progress positively under all circumstances with conviction and maturity in approach.

**Adaptability & Flexibility:** To adapt accordingly under the application of adverse or pressure conditions without deviating from critical to quality concerns.

**Enthusiasm for Learning:** Endlessly strives to learn through different activities.

**Other Strengths:** Possessing the quality of good storytelling through effective Data Visualizations and also a Team player with effective communication skills and abilities in resolving complex issues.

## Endorsement

I hereby declare that the information furnished above is complete and true to the best of my knowledge.

*Indranil Chakraborty*