



# NEW HORIZON COLLEGE OF ENGINEERING

New Horizon Knowledge Park, Ring Road, Marathalli  
Autonomous College Permanently Affiliated to VTU, Approved by AICTE & UGC  
Accredited by NAAC with 'A' Grade, Accredited by NBA

## TOPIC: A Hands-on workshop on “Data Viz Demystified”

On May 28, 2024, the New Horizon College of Engineering's Alumni Association and the Department of Computer Science and Engineering (Data Science) organized a workshop titled "Data Viz Demystified." The event was held at the Data Science Computer Lab-1 from 09:30 AM to 11:00 AM. Mr. Krishnav Dave, Founder & CEO of PreProd Corp, was the resource person for this workshop.

The workshop aimed to provide an in-depth understanding of data visualization, a crucial component in the field of data science. Data visualization is the process of converting data into a visual context, such as a chart or map, to make data easier to understand and extract insights from.

### Key Topics Covered

- 1. Introduction to Data Visualization**
  - Importance and benefits of data visualization.
  - Overview of various data visualization techniques.
- 2. Data Engineering**
  - The role of data engineering in preparing data for visualization.
  - Techniques for data cleaning and preprocessing.
- 3. Explainable AI**
  - Understanding the concept of explainable AI and its significance.
  - How visualization aids in making AI models interpretable.
- 4. ML Operations and Monitoring**
  - Overview of ML operations (MLOps) and its importance in the lifecycle of machine learning models.
  - Monitoring ML models using visualization techniques to ensure they perform well over time.

### Visualization Libraries Discussed

The workshop provided insights into several popular data visualization libraries, including:

- 1. Matplotlib:** Essential for creating static, animated, and interactive visualizations in Python.
- 2. Seaborn:** Built on Matplotlib, it simplifies the creation of attractive statistical graphics.
- 3. Plotly:** Known for interactive and high-quality graphs.
- 4. ggplot2:** A popular visualization package in R.
- 5. Bokeh:** Offers interactive visualizations for modern web browsers.
- 6. D3.js:** A JavaScript library for dynamic and interactive data visualizations.

7. **Altair**: A declarative statistical visualization library for Python.
8. **Geoplotlib**: Specialized in creating maps and plotting geographical data.
9. **Highcharts**: A JavaScript library for creating interactive charts.
10. **Tableau**: A powerful tool for business intelligence and analytics.

### Auto-Visualization Libraries

The workshop also covered auto-visualization libraries, which automate the creation of visualizations:

1. **AutoViz**: Automatically visualizes datasets with minimal code.
2. **Sweetviz**: Provides high-density visualizations for data exploration.
3. **D-Tale**: Integrates Flask and React for viewing and analyzing Pandas data structures.
4. **DataPrep**: Facilitates data preparation and visualization.

### Reporting Libraries

Various reporting libraries were discussed to help in generating structured reports:

1. **Jupyter Notebook**: An open-source web application for creating documents with live code and visualizations.
2. **Papermill**: Allows parameterization and execution of Jupyter Notebooks.
3. **Pandas Profiling**: Generates detailed profile reports from a Pandas DataFrame.
4. **ReportLab**: Used for creating PDFs in Python.

### Web Scraping from MillerCentre.org

A practical session on web scraping was included in the workshop. Participants learned how to use Python's BeautifulSoup library to scrape data from MillerCentre.org. Web scraping is essential for collecting large datasets from the web, which can then be used for sentimental analysis and other data science projects.

The "Data Viz Demystified" workshop by Mr. Krishnav Dave was highly informative and provided a comprehensive overview of the tools and techniques used in data visualization. Participants gained valuable insights into data engineering, explainable AI, ML operations, monitoring, and reporting. The hands-on sessions on visualization libraries and web scraping were particularly beneficial in enhancing practical skills.

This workshop is a useful reference for applying data visualization techniques in future projects.

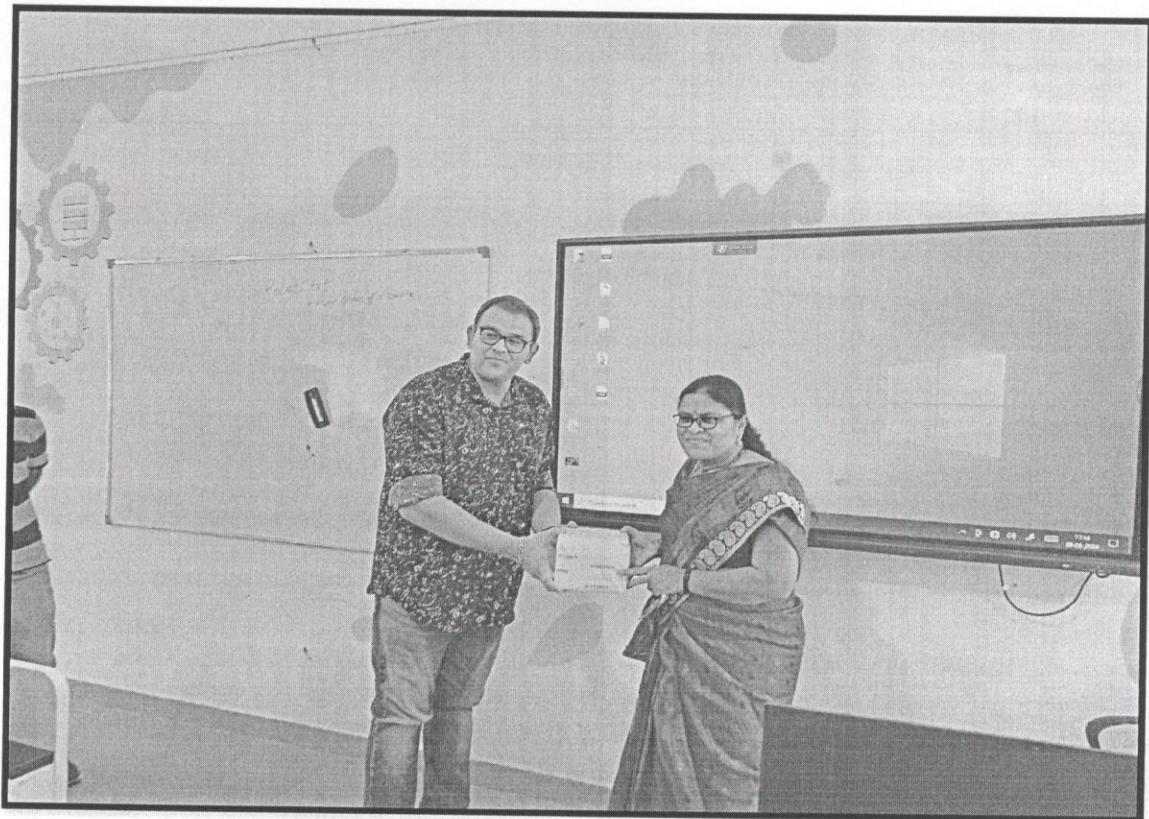
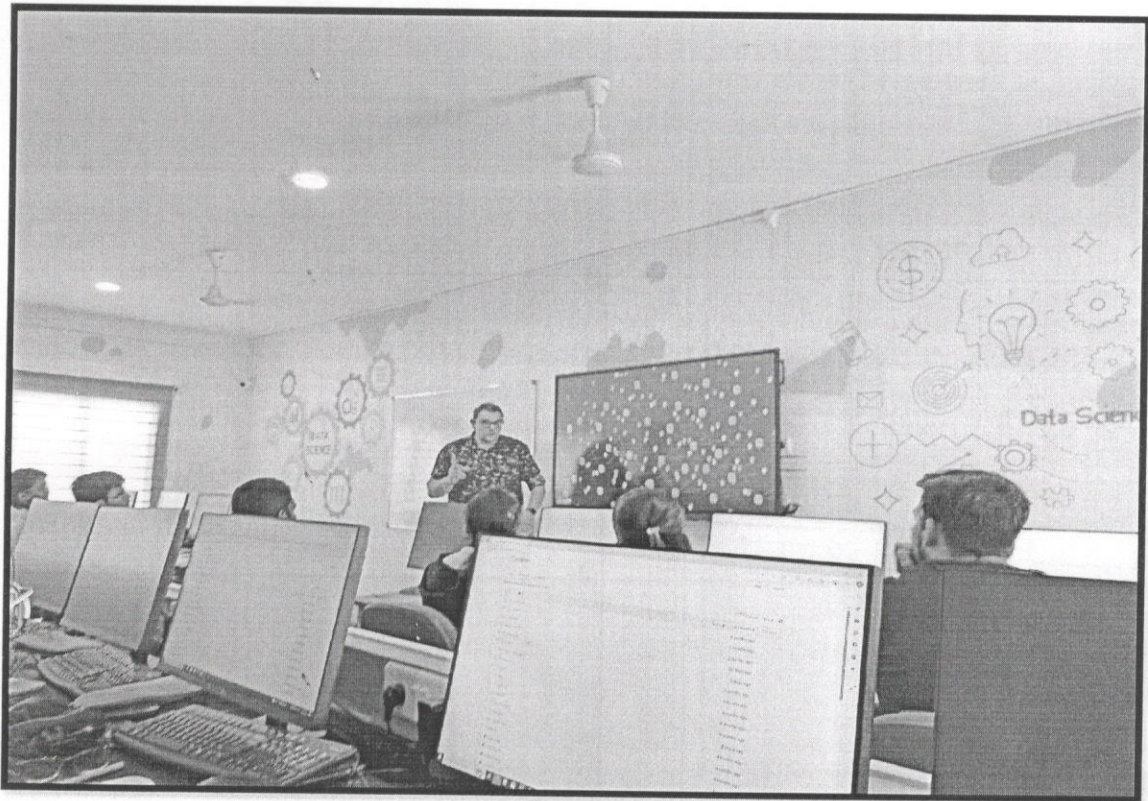


Faculty Coordinator

  
HOD-CSE(DS)

Head of Department - CSE (Data Science)  
New Horizon College of Engineering  
Rings Road, Bellandur Post, Bangalore - 560076

Glimpses of the event:



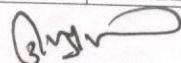


# NEW HORIZON COLLEGE OF ENGINEERING

Autonomous College Permanently Affiliated to VTU, Approved by AICTE & UGC  
Accredited by NAAC with 'A' Grade, Accredited by NBA

## Department of Computer Science & Engineering (Data Science) Participants list for "Data Viz: Demystified" Workshop (28-05-24)

S No	USN	Name	Signature
1	1NH22CD001	A LALITH	A. Lalith
2	1NH22CD002	ABHI S	Abhi.S
3	1NH22CD014	ANKITHA SURAKSHA V	Ankitha
4	1NH22CD015	ARCHANA K	Archana
5	1NH22CD024	BHOOMIKA AMBATI	Bhoomika
6	1NH22CD027	DARSHAN DIDAGUR	Darshan
7	1NH22CD028	DHEERAJ ARVIND	Dheeraj
8	1NH22CD029	DIVYESH RAJ PILLAI	Divyesh
9	1NH22CD034	HARSH KUMAR	Harsh
10	1NH22CD035	ISHANVI REDDY	Ishanvi
11	1NH22CD037	JANIYA MARIA TOMY	Janiya
12	1NH22CD038	JEEVITHA S	Jeevitha
13	1NH22CD042	K NIRANJAN	Niranjana
14	1NH22CD043	KANCHUKOMMALA NAVEEN	K.Naveen
15	1NH22CD049	KHUSHI NAGARAJ	Khushi
16	1NH22CD050	KHUSHI SHRIMALI	Khushi
17	1NH22CD061	MANISH KUMAR MALAKAR	Manish
18	1NH22CD064	MANOJ P	Manoj
19	1NH22CD073	NARAYAN PRASHANT NAIK	Narayan
20	1NH22CD075	NIHAL MANOHAR	Nihal
21	1NH22CD077	P HARSHAD ALI KHAN	P. Harshad
22	1NH22CD079	PENMATSA VENKATA SATYA SAHASRA	Penmatsa
23	1NH22CD081	POORNIMA	Poornima
24	1NH22CD083	R DEEPIYA SREE	R. Deepiya
25	1NH22CD085	RAKSHITHA G	Rakshitha
26	1NH22CD092	ROHAN M	Rohan
27	1NH22CD094	RUCHITHA S K	Ruchitha
28	1NH22CD104	SKANDA PRIYA V	Skandapriya
29	1NH22CD105	SNEHA	Sneha
30	1NH22CD106	SRI LIKITHA NANNURI	Sri Likitha
31	1NH22CD108	SRINIVAS K S	Srinivasa
32	1NH22CD111	SURYA YASHASWINI P V N	Surya Yashaswini
33	1NH22CD115	TANISHA SWAMI	Tanisha
34	1NH22CD116	TANUSHREE D KOTIAN	Tanushree
35	1NH22CD122	VENKAT LAKSHMI SHRUTHI A	Venkat Lakshmi
36	1NH22CD127	SREEJITH S	Sreejith
37	1NH22CD128	HRITHIK KUMAR	Hrithik
38	1NH22CD129	CHINTHAGINJALA TEENU DEEKSHITH	Chinthagini
39	1NH22CD139	VIPUL RAJ	Vipul

  
Coordinator