



**NEW HORIZON**  
COLLEGE OF ENGINEERING

ISSUE 1  
VOL. 1

# DATAVERSE DIGEST

DEPARTMENT OF  
COMPUTER SCIENCE  
ENGINEERING-DATA SCIENCE





# LETTER FROM HOD



It is with great pleasure that I unveil this edition of our newsletter for the Academic Year 2023-2024 , Volume 1, Issue 1 .

This newsletter celebrates the vibrant culture of innovation, creativity, and excellence that defines our department, serving as a platform for students and faculty to showcase their achievements, share ideas, and inspire others to think beyond boundaries. The department continually strives to create opportunities for students to grow academically, professionally, and personally. With various professional development programs, workshops, and hands-on activities, we equip our students with skills that are essential for excelling in the dynamic technological landscape.

I want to extend my heartfelt congratulations to the students and faculty for their relentless efforts and achievements, which are the cornerstone of our department's success. A special thank you to the editorial team for their hard work and creativity in curating this wonderful edition.

This newsletter reflects the department's journey, celebrating not only academic accomplishments but also co-curricular and extracurricular triumphs. I hope it inspires everyone to push boundaries, explore new horizons, and continue striving for excellence in all endeavors.

Regards,

Dr.B.SWATHI,

HOD-CSE(DATA SCIENCE)

# ABOUT THE DEPARTMENT



**The Department of Computer Science and Engineering(Data science) at NHCE offers graduate programs. The Computer Science & Engineering (Data science) department strongly emphasises on learning fundamentals and analysing the latest technology to develop students' creativity by encouraging them to take up projects with varying levels of complexity.**

**To meet the dynamic technological changes, efficient training sessions are provided on curriculum subjects and beyond. The course work is designed in such a way that, keeping in mind the vision of the CSE(DS) Department, and provides excellent quality of education which will provide the students with the necessary skills to build computing systems for a better world. The department is wide open to innovative ideas and methodologies, and is constantly striving to establish itself as the most sought after excellent learning center in the state of Karnataka.**

## IN THIS ISSUE

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ABOUT DEPARTMENT

VISION AND MISSION

WORKSHOPS AND IVs

STUDENT ACHIEVEMENTS,

EDITORIAL COMMITTEE



# VISION & MISSION



## VISION

To emerge as a department of eminence in Computer Science and Engineering(Data science) in serving the Information Technology Industry and the nation by empowering students with a high degree of technical and practical competence.

## MISSION

- To strengthen the theoretical and practical aspects of the learning process by strongly encouraging a culture of research, innovation and hands-on learning in Computer Science and Engineering(Data science)
- To encourage long-term interaction between the department and the IT industry, through the involvement of the IT industry in the design of the curriculum and its hands-on implementation.
- To widen the awareness of students in professional, ethical, social and environmental dimensions by encouraging their participation in co-curricular and extracurricular activities.

Dr. Manjunatha

# **ODD SEM**

**EVENTS AND WORKSHOPS**

**October 2023 to February 2024**

# EXPERT TALK

## "EVOLVING STRATEGIES AND TRENDS IN TECHNOLOGY AND DATA ENGINEERING"

~ 24 NOVEMBER, 2023

### ABOUT

On November 24, 2023, the Department of Computer Science & Engineering (Data Science) organized an Expert Talk Series on the theme "Evolving Strategies and Trends in Technology and Data Engineering"



The session featured two distinguished speakers:

**Mr. Naveen Kushalappa**, Full Stack Developer at Sprinto, who spoke on "Mastering the Art: A Journey into Learning New Technologies".

**Ms. Prakriti Sharma**, who addressed the topic "Evolving Strategies and Trends in Technology and Data Engineering".

Both experts shared valuable insights into the latest trends and strategies in the field of technology and data engineering, offering students guidance on how to master new technologies and stay ahead in the ever-evolving tech landscape. The session was engaging and provided practical knowledge to help students navigate their future careers





# EXPERT TALK

"EXPLORING THE INTERSECTION TRENDS IN DATA SCIENCE"

~ 19 DECEMBER, 2023

## ABOUT

On 19th December 2023, the Department of Computer Science & Engineering (Data Science) organized an Expert Talk Series on the theme "Exploring the Intersection Trends in Data Science." The session was led by **Mr. Maheswaran Perumal**, Full Stack Engineer at Connect and Heal - CNH Care.



**Mr. Maheswaran Perumal** shared valuable insights on selecting the right programming language, effective learning strategies, and mastering both syntax and semantics. He began by discussing his personal experiences in programming, particularly with Java, and highlighted the opportunities available in startup companies for launching a career. He explained how organizations use various programming languages to meet their operational needs. Mr. Perumal stressed the importance of consistent practice as part of an effective learning strategy and encouraged attendees to delve into advanced concepts, including data structures and algorithms, to enhance their programming skills. The expert talk series by Mr. Maheswaran Perumal provided valuable insights into Mastering the Art: Exploring the Intersection Trends in Data Science. The HOD has summarized the presentation, coupled with real world examples, made the complex subject matter accessible to the audience. This talk has contributed significantly to the understanding of Data Science and has sparked further interest among the students in exploring related topics.



# EXPERT TALK

## "INTRODUCTION TO DATA SCIENCE: BUILDING BLOCKS AND BEYOND"

~ 19 DECEMBER, 2023

### ABOUT

On 19th December 2023, the Department of Computer Science & Engineering (Data Science) organized an Expert Talk Series on the theme "Introduction to Data Science: Building Blocks and Beyond." The session was conducted by **Mr. Aditya Srivastava**, Packaged Application Senior Analyst at Accenture.



**Mr. Aditya Srivastava** has shared insights on How to choose the right language, learning strategies, Mastering Syntax and Semantics and Exploring Advanced Concepts. The session started with the introduction of the topic, importance of data and how to implement them. He gave the idea on how to choose a right language for the students by knowing in which language they have a keen interest. They need to follow a perfect learning strategy, embrace practice and persistence and also, they need to master syntax and semantics for learning any programming languages and writing an error-free code. They should always try to explore advance concepts such as data structures, Data Analytics and design patterns. This talk has contributed significantly to the understanding of Data Science and has sparked further interest among the students in exploring related topics



# WORKSHOP

## "MASTERING THE ART OF AUTOMATING END-TO-END DATA ANALYTICS PROJECTS"

~ 5 JANUARY, 2024

### ABOUT

On 5th January 2024, the Department of Computer Science & Engineering (Data Science) organized a workshop titled "Mastering the Art of Automating End-to-End Data Analytics Projects". The session featured two distinguished speakers: **Mr. Anand Jha**, Lead Technical Analyst at Coforge, and **Ms. Renita Nazareth**, Senior Quality Analyst at UST.



**Mr. Anand Jha** shared valuable insights on essential tools and skills for data analysts, focusing on programming languages like Python and SQL. He emphasized learning strategies, mastering syntax and semantics, and exploring advanced concepts to become proficient in the data analytics field.

**Ms. Renita Nazareth** provided a practical perspective on industry requirements, stressing the importance of continuous learning as technologies evolve. She encouraged students to create LinkedIn and GitHub accounts to stay updated on the latest developments in data analytics and database software.

The workshop proved to be highly informative, equipping students with both technical skills and industry insights essential for success in the ever-evolving data analytics domain.



# INDUSTRIAL VISIT

## iTriangle telematics

~ 12 JANUARY, 2024

### ABOUT

On 12th January 2024, second-year CSE (Data Science) students from New Horizon College of Engineering, accompanied by Dr. Kumar B I D (Professor) and Mr. Vijay Kumar R (Assistant Professor), visited **iTriangle Telematics Solutions**, a leading company specializing in telematic devices and solutions.



The visit offered students a glimpse into the cutting-edge technologies shaping the telematics industry. Established over 14 years ago, iTriangle has become India's largest telematics maker, with over 800,000 devices deployed and a clientele exceeding 300 customers, including 20,000 electric vehicle devices.

During the visit, **Mr. Sunil Kumar S K, Senior Vice President**, presented an overview of the company's core functions, including vehicle tracking, fleet management, driver behavior monitoring, IoT integration, and electric vehicle solutions, all aligned with the "Atma Nirbhar Bharat" initiative.

The session highlighted the growing importance of telematics in ensuring safer roads, secure lives, and improved productivity, showcasing iTriangle's pivotal role in transforming mobility and IoT in India.

# EVENT

## NATIONAL YOUTH DAY CELEBRATION

~ 12 JANUARY, 2024

### ABOUT

On 12th January 2024, New Horizon College of Engineering celebrated National Youth Day with a special guest lecture. The session was graced by **Mr. Abhay Chaturvedi**, a certified Life Coach and Emotional Intelligence Coach practitioner, who was invited to speak to the students.



The event began with an introduction highlighting Swami Vivekananda's visionary leadership and mission to revive India's cultural heritage, followed by an invocation song. Dignitaries, including Heads of Department, paid homage to Vivekananda by presenting a garland and lighting a lamp, symbolizing respect for his teachings. The highlight was the address by **Mr. Abhay Chaturvedi**, a distinguished guest speaker and certified Life Coach. He opened with a thought-provoking question about the significance of 9/11 but redirected the focus to 1893, the year of Vivekananda's historic speech at the Parliament of the World's Religions in Chicago. Mr. Chaturvedi emphasized the importance of this event in promoting interfaith dialogue and establishing Vivekananda as a global spiritual leader. He recounted Vivekananda's impactful speech, which began with "Sisters and brothers of America!" and advocated for religious tolerance and harmony among different faiths. Mr. Chaturvedi also discussed the contemporary relevance of Vivekananda's teachings, challenging conventional notions of heroism by emphasizing the value of tolerance and moderation. The session concluded with a meditative reflection on the healing power of silence and peace, leaving attendees inspired by Vivekananda's enduring legacy.





# WORKSHOP

## "APPLIED DATA SCIENCE TOOL KIT"

~ 1 FEBRUARY, 2024

### ABOUT

The Department of Computer Science & Engineering (DataScience), New Horizon College of Engineering had organized a one-day hands-on workshop on “Applied Data Science Tool Kit” on 01 FEB ,2024 at VMware lab



The Data Analysis and Data visualization is the heart of Data Science. The resource person **Mr.Vineet Srivatsava** made the entire workshop interactive with many real-world datasets and real-time problems which was very interesting and easily understandable for students. The workshop commenced by using an example of how datascience is used in dairy farming in Kenya in 2010 (I Cow Core Value) in predicting the profit. The discussion covered various applications of data science.

A live demonstration using ML algorithms in Zero code learning for Predicting Health Insurance premium was explained and some exercises in data science predictions were given to students to make them understand the process of data analysis in a better way. The workshop concluded with a roadmap drawn to guide the students in choosing their path towards data science.





# INDUSTRIAL VISIT

## Schneider Electric

~ 9 FEBRUARY, 2024

### ABOUT

On Friday, 9th February 2024, the Department of CSE (Data Science) at New Horizon College of Engineering organized an industrial visit to **Schneider Electric** Private Limited, Bengaluru. The visit took place at the company's facility on Whitefield Ashram Road, a hub for cutting-edge energy and automation solutions.



The industrial visit to **Schneider Electric** provided students with firsthand experience of the design and manufacturing processes for power distribution systems. They engaged with engineers on innovative technologies like microgrids and IoT, gaining insights into the company's culture and career opportunities. This experience enhanced their knowledge and interest in energy and automation, highlighting real-world applications and challenges. Industrial visit ended with meeting the Director of the company in the Conference Room. He gave students an insight on his company operations and how they are working and collaborating with other companies. This industrial visit at Schneider Electric India Pvt. Ltd, Bengaluru was helpful for the students to understand the best practices followed in industries and were inspired to replicate the same in the department.

# **EVEN SEM**

**EVENTS AND WORKSHOPS**

**May 2024 - Aug 2024**

# GUEST LECTURE

## "EVOLUTION AND IMPACT OF GENERATIVE AI ACROSS MULTIPLE DOMAINS"

~ 17 MAY, 2024

### ABOUT

On May 17, 2024, an interactive guest lecture titled “Evolution and Impact of Generative AI Across Multiple Domains” was conducted by **Ms. Shwetha M.S**, Senior Test Engineer at Unisys Global Services.



**Ms. Shwetha** delivered an insightful lecture on generative AI, explaining how algorithms can create new content—such as text, images, music, and complex designs—based on their training data. She highlighted OpenAI's GPT-3 as a leading example, showcasing its capability to generate human-like text.

#### **Key topics covered in the lecture included:**

- Software Development Life Cycle
- Architecture of Generative AI

The lecture format included an interactive quiz segment, allowing participants to engage directly with Ms. Shwetha and ask questions. This approach fostered a deeper understanding of the material and encouraged active audience participation.

The event concluded with a motivational call to action for aspiring AI enthusiasts, encouraging them to further explore the field of generative AI while considering its vast potential and associated responsibilities. Ms. Shwetha's comprehensive overview provided a balanced perspective on generative AI, inspiring attendees to contribute to the future of this transformative technology.





# GUEST LECTURE

## "EXPLORING DATA SCIENCE WITH PYTHON"

~ 24 MAY, 2024

### ABOUT

The department of Computer Science & Engineering (Data Science) had organized an expert talk series on the theme "Exploring Data Science with Python" on 24th May 2024.

**Mr. Venkat Surendra**, Senior Technical Consultant, Adobe was the expert speaker for the session.



Mr. Surendra's session on data science provided a comprehensive overview of the field, highlighting its significance in today's data-driven landscape. He began by defining data science as an interdisciplinary domain that integrates statistics, computer science, and domain-specific expertise, underscoring how these elements come together to extract valuable insights from data.

A key focus of the session was on the role of Python in data science. Mr. Surendra praised Python for its simplicity and versatility, making it an ideal choice for both beginners and experienced data scientists. He discussed key data science steps, including data collection, preprocessing, and the significance of data quality through cleaning and normalization techniques.

Additionally, he introduced exploratory data analysis (EDA) as a method for identifying data patterns. The session equipped students with foundational knowledge in Python and essential data science concepts, supported by hands-on demonstrations and an interactive Q&A for deeper engagement.



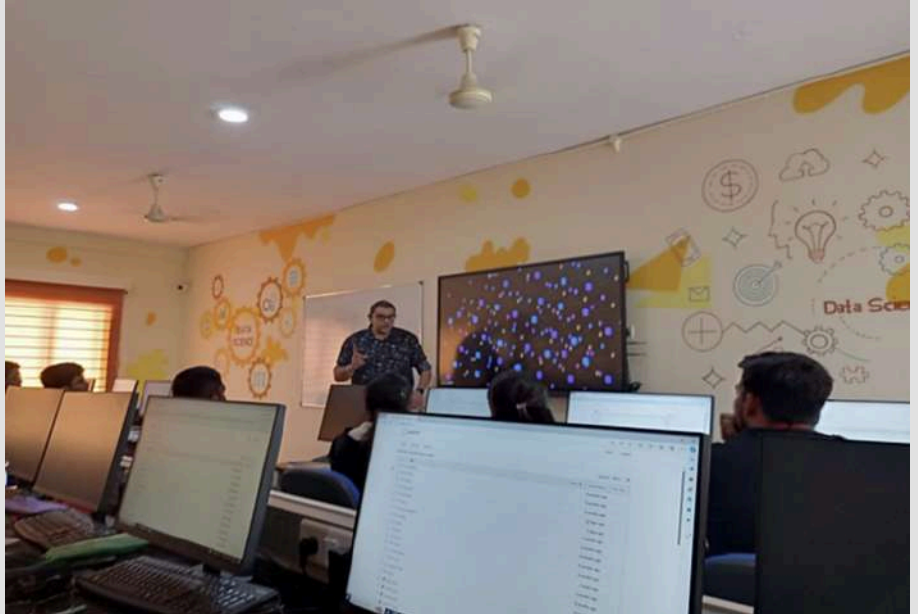
# WORKSHOP

## "DATA VIZ DEMYSTIFIED"

~ 28 MAY, 2024

### ABOUT

On May 28, 2024, the Alumni Association and the Department of Computer Science and Engineering (Data Science) at New Horizon College of Engineering organized a workshop titled "Data Viz Demystified". The session was conducted by Mr. **Krishnav Dave**, Founder & CEO of PreProd Corp.



The workshop offered participants a comprehensive understanding of data visualization, a key aspect of data science, highlighting its role in simplifying complex datasets and enhancing decision-making.

#### Key Topics Covered

##### 1. Introduction to Data Visualization

Importance and benefits of data visualization.

Overview of various data visualization techniques for effective communication of insights.

##### 2. Data Engineering

The role of data engineering in preparing datasets for visualization.

Techniques for cleaning and preprocessing data to ensure quality visual outputs.

##### 3. Explainable AI (XAI)

Understanding the significance of explainable AI in making AI models transparent and interpretable.

How visualization tools aid in explaining complex AI models to stakeholders.

##### 4. ML Operations and Monitoring

Overview of machine learning (ML) operations and their importance in managing the lifecycle of ML models.

Utilizing visualization techniques to monitor and evaluate model performance over time.

#### Conclusion

the workshop equipped participants with the knowledge and skills to leverage data visualization techniques effectively. By bridging concepts like data engineering, explainable AI, and ML monitoring with practical visualization strategies, the session reinforced the importance of making data-driven insights accessible and actionable.



# GUEST LECTURE

## "DATA ANALYST'S TOOLKIT"

~ 6 JUNE, 2024

### ABOUT

On June 6, 2024, the Department of Computer Science & Engineering (Data Science) at New Horizon College of Engineering held a hands-on workshop, "The Data Analyst's Tool Kit," led by **Mr. Kaushik Hatti** from Pinochle.AI. .



The event began with a welcome note from Ms. Khushi, a 4th-semester student, followed by an introduction to Data Analytics by Mr. Kaushik Hatti. He emphasized that data analysis and visualization are central to Data Science. The workshop was interactive, featuring real-world datasets and real-time problems, making the content engaging and accessible for students. It included a live demonstration of deep learning and machine learning algorithms, enhancing understanding of the processes involved. The workshop concluded with a roadmap to help students navigate their careers in data analytics.





# WORKSHOP

## DATA VIZ : NLP SENTIMENT ANALYTICS

~ 7 JUNE, 2024

### ABOUT

The Alumni Association and the Department of Computer Science and Engineering (Data Science) at New Horizon College of Engineering organized a workshop titled “Data Viz: NLP Sentiment Analytics” on June 7, 2024, .

Conducted by Mr. **Krishnav Dave**, Founder & CEO of PreProd Corp,



The session focused on practical approaches to data collection, analysis, and visualization, with an emphasis on sentiment analysis using natural language processing (NLP).

The workshop provided participants with a comprehensive understanding of key data analytics concepts:

- **Procuring Data**
- **Storing Data in Local Environment**
- **Web Scraping Using BeautifulSoup (bs4)**
- **Monolithic and Microservices Architectures**

Overall, the workshop equipped participants with vital data analytics skills, bridging academic knowledge with practical industry applications in data procurement, processing, sentiment analysis, and software architecture.



# SOCIAL OUTREACH PROGRAM

## VISIT TO MAKKALA DHAMA

~ 19 JUNE, 2024

### ABOUT

On June 19th, 2024, the Computer Science & Engineering (Data Science) students of New Horizon College of Engineering visited Makkala Dhama, a school for underprivileged female students located in Bettakote, Devanahalli, Bangalore



This visit was part of the department's Social Outreach Program, aimed at fostering compassion and community awareness through meaningful service.

The students took the initiative to fundraise, collect, procure, and donate essential supplies to the students of Makkala Dhama. This contribution aimed to support the educational needs of the underprivileged students and provide them with the necessary resources to enhance their learning experience.

Through this initiative, the students not only contributed to a worthy cause but also honed their volunteering and leadership skills. The experience offered them a valuable lesson in giving back to the community, helping them develop empathy and a deeper understanding of the challenges faced by underprivileged communities. This outreach program proved to be a rewarding and impactful experience for both the students and the recipients.



# WORKSHOP

## "DATA VIZ: NLP FOUNDATIONS"

~ 22 JULY, 2024

### ABOUT

The Department of Computer Science and Engineering (Data Science), in collaboration with the Alumni Association, organized a workshop titled "Data Viz: NLP Foundations" on 22nd July 2024.



The session was led by a resource person from **PreProd Corp**, focusing on foundational concepts and practical techniques in Natural Language Processing (NLP).

#### Key Topics Covered

##### 1. Overview of NLP Foundations

Introduction to core NLP principles and their real-world applications.

##### 2. Statistical NLP

Understanding statistical approaches to analyze and model language data.

##### 3. Sequential NLP

Exploration of sequence-based NLP techniques used in tasks like text generation and language translation.

##### 4. Document-Term Matrix (DTM)

Explanation of DTM as a structured representation of text data, enabling machine learning and data analysis tasks.

##### 5. Exploratory Data Analysis (EDA) Methods

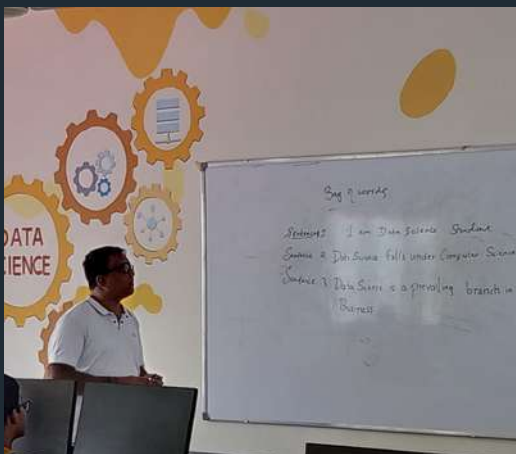
Techniques for visualizing and understanding text datasets before processing.

##### 6. Sparse Matrix Representation

Handling large-scale text data efficiently using sparse matrix techniques to optimize computation and storage.

#### Conclusion

The workshop offered participants a strong foundation in NLP and its applications, equipping them with tools and methodologies to handle text data effectively. The session highlighted the growing importance of NLP in data science and provided valuable insights into key analytical methods.





# INDUSTRIAL VISIT

## DevOn

~ 31 JULY, 2024

### ABOUT

An Industrial visit to “**DevOn**”, Karnataka was organized by the CSE (Data Science) department of New Horizon College of Engineering, Bangalore on Wednesday, 31st July 2024. The company is situated at Embassy Tech Village, Outer Ring Road, Bengaluru.



DevOn is an international tech company that provides solutions for software development, Technology Consulting & Training. The first session was an Introductory session which comforted the students. **Mr. Amit Jain, managing director of DevOn India**, took us through the company's history and evolution phases. Students then were briefly acknowledged with technical skills and important aspects involved in software development. Students had the opportunity to interact with industry professionals and gain valuable insights into the company's products, services, and operations. This enriching experience provided an in-depth understanding of the IT industry and modern software development practices, bridging the gap between academia and industry exposure.

# STUDENT ACHIEVEMENTS



**Ms. Kushi Nagaraj**, USN 1NH22CD049, has been recognized with the prestigious **NPTEL Superstar Award** for her outstanding performance. This award highlights her exceptional dedication and commitment to learning through the National Programme on Technology Enhanced Learning (NPTEL).

Her achievement serves as an inspiration to her peers and reflects the hard work and determination she has shown in her academic journey. Congratulations to Ms. Kushi Nagaraj for this remarkable accomplishment!

# STUDENT ACHIEVEMENTS



In a thrilling interactive event designed to enhance students' business acumen and managerial prowess, **The Best Manager competition** provided an exciting platform for participants to tackle real-life corporate challenges.

The event featured four engaging rounds: Aptitude Test, Press Conference, Sales Pitch, and a Stress Interview, each designed to test strategic thinking, communication, and leadership skills. Out of 39 participants, **Khushi Shrimali** (1NH22CD050), a talented CSE-Data Science student, emerged victorious, securing the coveted 1st place.

Khushi's exceptional performance exemplified true managerial excellence, setting a benchmark for future aspirants!



# STAFF EDITORIAL COMMITTEE



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