



**VALLURUPALLI NAGESWARA RAO VIGNANA JYOTHI
INSTITUTE OF ENGINEERING AND TECHNOLOGY**

An Autonomous, ISO 9001:2015 & QS I-Gauge Diamond Rated Institute, Accredited by NAAC with 'A++' Grade
NBA Accreditation for B.Tech. CE,EEE,ME,ECE,CSE,EIE,IT,AME, M.Tech. STRE, PE, AMS, SWE Programmes
Approved by AICTE, New Delhi, Affiliated to JNTUH, NIRF (2023) Rank band:101-150 in Engineering Category
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DATA SCIENCE DIGEST

November 2023 - December 2024

Newsletter



“ DIFFERENTIATED BY INPUTS – INTEGRATED BY OUTPUTS “

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Volume 2
Issue 1

WEBSITE LINK :



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NEWSLETTER

FROM THE DOMAIN OF DATA SCIENCE

○ ○ ○ ○ Issue 2

Welcome to the Domain of CSE-DS.

This domain is established in 2020 under the department of CSE - DS and CyS managing a B.Tech. program with the intake of 100+ and 100+ respectively. This department is dedicated to explore the fascinating fields of Data Science, equipping the students with the knowledge and skills to excel in this rapidly evolving domain.

We are thrilled to introduce you to the 2nd edition of the Data Science domain's Newsletter. As we embark on this exciting journey, our aim is to provide a platform that not only informs but also inspires, connects, and celebrates the world of data science here at VNRVJiet.

In today's rapidly evolving world, data is the new currency, and the ability to extract insights from it is paramount. The Data Science Domain stands at the forefront.

Our department is a dynamic hub where curiosity indeed meets computation, statistics fuse with storytelling, and technology converges with real-world impact. In these pages, you'll find a wealth of information, from faculty spotlights and student achievements.

But this newsletter is not just about us; it's about you, our vibrant community. We encourage you to actively participate, contribute your insights, share your experiences, and also collaborate.

***Stay curious,
stay
data-driven!***



MEET THE TEAM



Dr. T. SUNIL KUMAR
HEAD OF DEPARTMENT,
Dept. of CSE - (CyS, DS) and AI&DS



Dr. N. SUNANDA
EDITORIAL MEMBER,
*Dept. of CSE - (CyS, DS) and
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Mr. P. VEERANJANEYULU
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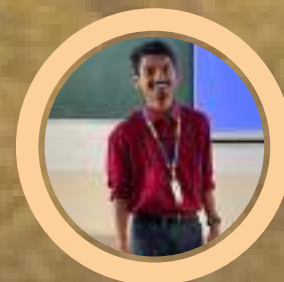
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VISION

- To produce engineers with in-depth technical knowledge and ethical values.
- To incorporate ingeniousness and self-driven capabilities to the students in the fields of mezzanine technologies.
- To nurture the ecosystem of Innovation, Research and Development through an integrated teaching-learning environment for faculty and students.



MISSION

- Offers diverse curriculum in line with industry, professional and research bodies.
- Provide project-based learning environment for developing diverse practical capabilities.
- Offer advanced trainings to enable process skills and competencies.

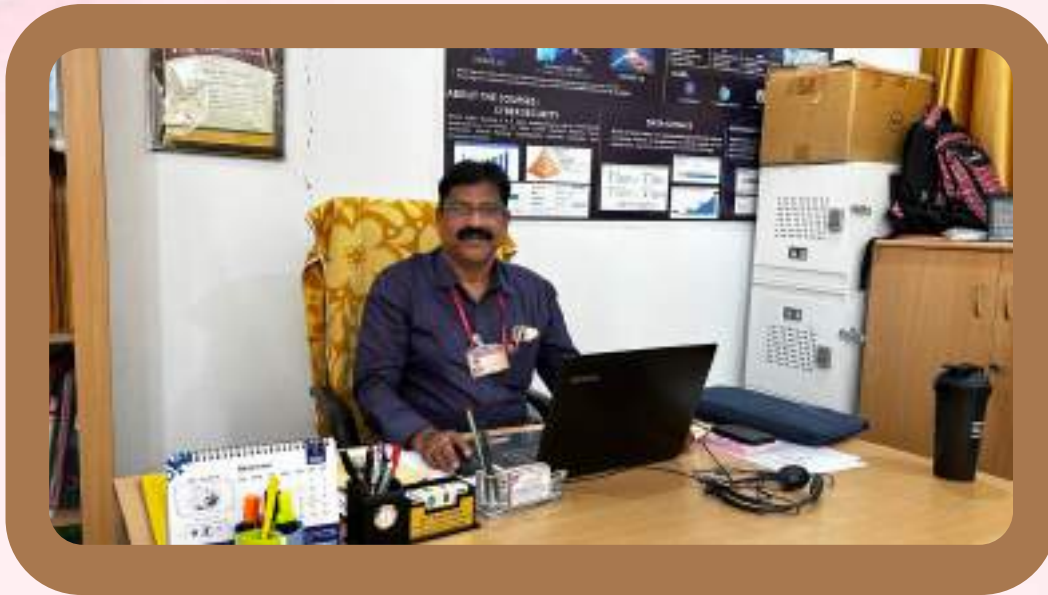
About the Department



Our Department is established in 2020 with the DS and CyS B.Tech. program with the intake of 60 and 60 respectively and in the year 2021 started with the AI & DS B.Tech. program with an intake of 60 and Data Science Intake increased to 120. This Department is dedicated to explore the fascinating fields of Data Science, AI, and Cyber Security issues equipping the students with the knowledge and skills to excel in these rapidly evolving domains. Now currently accommodating 180 seats in Data Science.

The Department is involved in pioneering research and supports research activities both for teachers and students. We promote a culture of innovation, encouraging students and faculty members to explore new ideas, conduct research projects, and publish their findings in reputed journals and conferences and explore themselves in cutting-edge technologies like Image Processing, Augmented Reality, Data Analytics, Cyber Forensic, Malware analysis etc. All the activities are conducted in association with different clubs like VJ DATA QUESTERS, VJ GARUDA VIGILANCE, VJ ARC clubs.

MESSAGE FROM HEAD OF DEPARTMENT



“

It is an exciting time for our Department as we witness tremendous growth in Data Science, Cyber security & AI-DS. Our students have excelled in various competitions, and our partnerships with industry leaders have paved the way for innovative projects and research.

We are committed to providing a cutting-edge curriculum, preparing our students to thrive in these dynamic fields. I thank our dedicated faculty and congratulate our students on their achievements, Let's continue striving for excellence.

”

“Be good! Do Good!! Be Unite..!”

Dr. T. Sunil Kumar
HEAD OF THE DEPARTMENT



FACULTY SPOTLIGHT

THE FACULTY SPOTLIGHT PROVIDES A VITAL OPPORTUNITY TO RECOGNIZE THE EXCEPTIONAL CONTRIBUTIONS OF OUR EDUCATORS. BY SHOWCASING THEIR PROFESSIONAL JOURNEYS, WE HIGHLIGHT THEIR DEDICATION TO EXCELLENCE AND PASSION FOR KNOWLEDGE. THIS CELEBRATION HONORS THEIR COMMITMENT AND UNDERScores THE SIGNIFICANT IMPACT THEY HAVE ON OUR ACADEMIC COMMUNITY, FOSTERING A CULTURE OF APPRECIATION AND INSPIRING FUTURE GENERATIONS OF LEARNERS.

FACULTY ACHIEVEMENTS

Dr.M.Raja Sekar , Dr.T.Sunil Kumar & Dr.P.Subhash has being selected as a Research supervisor under JNTUH.

01

Dr.T. Sunil Kumar, Dr. P. Subhash and Dr. N . Sunanda are recognised as research supervisors under Vishveshwarayya Technological University, Bangalore.

02

Dr.N.Sunanda and Mrs.Rasmita Kumari Mohanty has received Research Incentives for their research work in the department.

03

Dr. Talluri Sunil Kumar, Professor & Mr. Manmathnath Das Published Text books on "Artificial intelligence in the Age of Big Data " by Leilani Katie publications and Press, Hyderabad.

04

Dr. T. Sunil Kumar and Dr. Y. Sucharitha has organised one week Professional Development Program on “ Data Visualization” from 29th Jan 2024 to 3rd February 2024

05

Mr. A. Pramod Kumar and team has organised one week Professional Development Program on “ Data Science Mastery” from 5th February 2024 to 10th February 2024.

06

FACULTY ACHIEVEMENTS

07

Dr. T. Sunil Kumar and Dr. Sagar Yeruva published a Textbook on “Machine Learning Mastery” by “SK group of research Mastery”.

Dr. T. Sunil Kumar published a book on “ Advanced Data Science techniques with python” published by “ SK Research group of companies”

08

Mrs. G. Ashalatha has published aText book on “ Deep learning for Computer Vision” published by “ Leilani Katie publications and Press”.Mrs. E. Lalitha has published a text book on “Machine Learning in IoT” by “Leilani Katie publications and Press”.

09

Dr.T.Sunil Kumar, Dr.Y.Bhanu Sree, Dr.N.sunanda, Dr.G.Spoorthy and Mr.Manmath Nath Das has successfully completed Short term Course on "Data Analysis in Criminal Justice" Held During 3rd Spetember 2024 to 10th November 2024 Organized by Center for Criminal Justice Research IIT Kanpur.

10

The Department of CSE-(CyS,DS) and AI&DS in collaboration with Humanities and Science organised an International Conference on “ Applied Mathematics and Advanced Data Analyutics for Industry 5.0 (ICAMADA-24)”

11

Under the guidance of Dr. T. Sunil Kumar, HOD and professor of the Dept. of CSE--(CyS,DS) & AI-DS conducted an outreach activity at Peda Chimtakunta, supporting education and welfare. This initiative showcased the faculty's dedication to social impact.

12

Dr. P. Subhash and Mrs. D. Sreevidya has Written NPTEL Certification Exam and scored top 2% , in the field of Cyber security.

OUT-REACH PROGRAMME



The Department of Computer Science and Engineering (Data Science, Cybersecurity) & AI-Data Science, through VJ Data Questers, organized an outreach program at Peda Chintakuru and Narsapur Old Age Home, focused on supporting education, health, and well-being. We distributed educational books, hygiene kits, and essential groceries, aiming to meet the needs of both children and the elderly.

Along with these contributions, we engaged the children in interactive learning sessions and brought joy to the elderly with activities that encouraged connection and storytelling. This initiative reflected our commitment to social responsibility, fostering a sense of community, spreading knowledge, and bringing happiness to those who need it most.



STUDENT SPOTLIGHT



In the world of education, the student is the radiant star in the spotlight. Each student represents a unique blend of potential, curiosity, and ambition, and their journey through the educational system is a dynamic and transformative one. The spotlight on a student is not just about academic achievements but also about their personal growth, resilience, and creativity. It is a stage where they showcase their talents, ideas, and dreams. Students absorb knowledge, challenge conventions, and aspire to make a difference in the world. The spotlight on a student is a reminder of the endless possibilities that await them, encouraging them to shine brightly and contribute meaningfully to society.

STUDENT ACTIVITIES

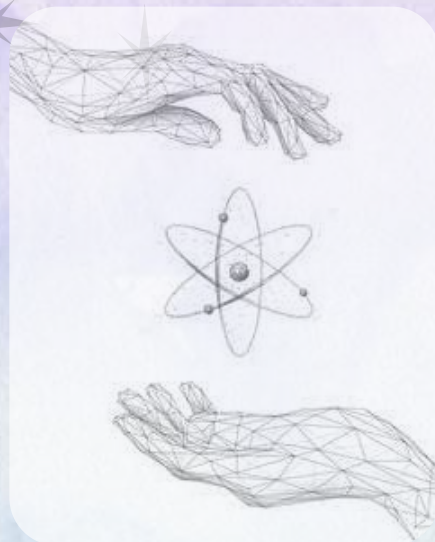
DRAWINGS



PRANAV BABU
23071A67K1
2ND YEAR DS-C



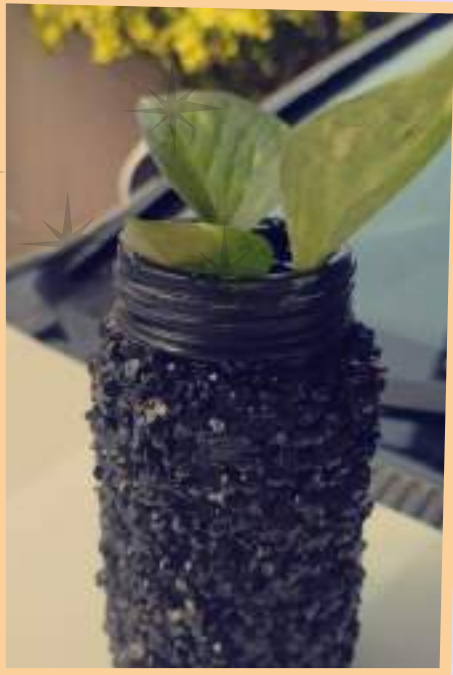
MUDU GANESH
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3RD YEAR DS-B



BHANU SATISH
22071A6749
3RD YEAR DS-A



TEJASWI
22071A6759
3RD YEAR DS-A



SHAKRUTHI
23071A6755
2ND YEAR DS-A



DHANASREE
23071A6752
2ND YEAR DS-A



BINDU SREE
22071A6770
3RD YEAR DS-B



SHIVANI
23071A6712
2ND YEAR DS-A





L.B.SUHASH REDDY
23075A6705
3RD YEAR DS-A



STUDENT ACHIEVEMENTS



A. Tanvish, bearing the roll number 23071A6202 from CSE - Cyber Security has been awarded for getting the position in Basket ball tournament.

B. Satwika and K. Charana from DS-B have been selected as interns for Amazon as Software Developers, with a monthly package of ₹40,000. Congratulations to both on this achievement!



The title of Most Influential Toastmaster of the VNRVJIEET Toastmasters Club has been awarded to a 3rd-year student from DS-A. Congratulations on this recognition!

A 2nd-year student from AI & DS has been selected for the Google Summer of Code (GSoC) 2024 program. Congratulations on this remarkable achievement!



Yathin Kumar and Akash Vardhan secured 2nd place in the VNR-VJiet Convergence Hackathon. Congratulations to both on their success!

Congratulations to the NPTEL toppers from the Department of CSE, including students from Cyber Security (CyS), Data Science (DS), and AI & DS. Your hard work and dedication have truly paid off!





Ranvitha (22071A6741), Sanjana (22071A6760), and Srilatha (22071A6709), 2nd-year students from DS-A, have secured internships at Amazon with a stipend of ₹35,000 for two months, from May 6, 2024, to June 28, 2024. Congratulations to them on this fantastic opportunity!



We are happy to share that two of our students, Parshi Praneesh (2nd Year, Data Science) and Rudrabatla Vashishta (2nd Year, AI & DS), won at the Code For Good Hackathon conducted by JPMorgan Chase & Co. as part of the 2024 Software Engineer Program.



Our Data Science Department students contributed a total of 450 kgs of rice for Wayanad fund relief.



SPORTS ACHIEVEMENTS



Congratulations to VNR Throw ball team on securing 3rd place in the National throw ball championship.



Congratulations to Anshuk Akuri, a third-year student in the AIDS branch, for achieving the runner-up (2nd) position while representing VNR VJIEET in the chess competition organized by VJIM!



Congratulations to Tanvish from the 1st year Cyber Security program for winning the basketball competition at CVR College of Engineering!



Congratulations to the first-year Sports Stars from the Departments of CSE (Cybersecurity and Data Science) and AI & Data Science!





Congratulations to P. Chaitanya from the 3rd year Data Science-B for being part of the winning team in the cricket tournament at CVR College!



Congratulations to the team for winning 1st place in the GRIET Women's Basketball Tournament!



Congratulations to G. Anirudh from the 1st year Data Science-B for winning first place in the football match at the VNR VJIE Sports Fest!



“

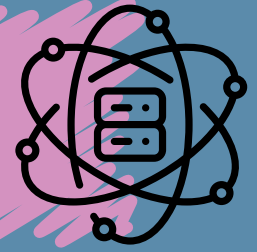
IT'S NOT THE WILL TO WIN THAT MATTERS-EVERYONE HAS THAT. IT'S THE WILL TO PREPARE TO WIN THAT MATTERS.

PAUL “BEAR” BRYANT ”



CLUB

VJ DATA QUESTERS



VJ Data Questers, the official club of the domain Data Science at VNR VJIET. Our mission is to foster a community of data enthusiasts and empower them with the knowledge and skills needed to navigate the dynamic landscape of data science.

WHO ARE WE ?

We are a vibrant group of students, professors, and data aficionados who share a common passion for data. Our club serves as a hub for all things data-related, where members can engage in meaningful discussions, participate in hands-on projects, and explore the limitless possibilities of data science.

WHAT WE DO?

Educational Workshops, Hackathons and Competitions, Guest Lectures, Data-driven Projects and Community Building.

***“ DIFFERENTIATED BY INPUTS-INTREGATED
BY OUTPUTS “***

For further details



Contact : +91 8498089180



Mail us : vjdataquesters@gmail.com



Follow us : [@vjdataquesters.club](https://www.instagram.com/vjdataquesters.club)



CLUB EVENTS

LOGO DESIGNING COMPETITION

Logo designing competition held from 14th to 18th November 2022. An event of designing logos related to data science.



HIT -THE FIRST CHASE

On February 11, 2024 the event HIT-The Second Chase was conducted, which aims to enhance problem-solving, critical thinking, and technical knowledge through puzzles, aptitude tests, and technical questions.



GUEST LECTURE BY DATA ENGINEER



A guest lecture by Samardh Moka who is a data engineer and an alumni of VNRVJIEET working in ANZ BANKS, AUSTRALIA as a data engineer who shared experience and knowledge about data science on 8th Feb 2023.

GUEST LECTURE ON DATA SCIENCE JOURNEY

This guest lecture on data science provided attendees with new insights into the field and its applications. This can help them deepen their understanding of data science and gain a better appreciation of its importance.



BLOG-A-THON

It attracted a significant number of participants, showcasing the enthusiasm for technical writing among the audience. Participants explored various technical subjects and presented them in unique and creative ways, enriching the overall knowledge base.



DATA VISUALIZATION USING TABLEAU

One day hands on workshop was conducted on the topic "Data Visualization using TABLEAU" by Mr. Gullapalli Sathar on 21st March 2024. During the program, second-year students learned the fundamental Tableau skills needed to create powerful dashboards and data visualizations.



PROFOLIO

The goal is to promote creativity and innovation within the field of web design by recognizing and rewarding outstanding portfolio websites that showcase exceptional talent and skill. By fostering a collaborative and supportive community among designers, we aim to encourage

SIH 2024

The initiative seeks to promote creativity and innovation in the field of web design by recognizing and rewarding outstanding portfolio websites that demonstrate exceptional skill and originality. By fostering a collaborative and supportive community among designers,



DYNAMICS OF ALGO: ABDUL BARI



A guest lecture by Mr.Abdul Bari on the topic "Dynamics of Algorithms" was given on 11th September 2024, which is conducted exclusively for 3rd year students

GET SET PY

It is a Python Bootcamp with hands on workshop for 2nd Year Students! The main motto of this event is to give students a Idea on Python basics with Practical projects done



Techno Vista

2k24



Techno Vista is a premier collaborative event organized by the Data Science and Cyber Security Clubs, offering a diverse range of activities including a coding contest, cyber hunt, red teaming exercise, case study competition, hackathon, project expo, tech elocution, and guest lectures. This event aims to foster innovation, enhance technical skills, and provide networking opportunities for students, professionals, and tech enthusiasts.

Participants had engaged in competitive and educational activities, showcase their projects, and gain insights from industry experts, making Techno Vista a unique platform for learning, growth, and collaboration in the fields of data science and cybersecurity.

Which was Conducted on 10th, 11th, 12th of June 2024 at VNRVJIET
Events Conducted



Guest Lecture

"VJDataQuesters at VNRVJIET proudly presents a guest lecture on Data Insights, offering a deep dive into the latest trends and tools in data analytics. This session will equip students with the knowledge and skills needed to navigate the evolving world of data, unlocking new opportunities for innovation and growth."



Flashmob

We are thrilled to announce that Technovista at VNRVJIET was a resounding success! The event featured an exhilarating flash mob that energized the crowd and set a vibrant tone for the day. With inspiring workshops, insightful talks, and enthusiastic participation from students and guests alike, we celebrated the spirit of innovation and technology.



24HR HACKATHON

"Get ready to push the limits of creativity and innovation in our 24-hour hackathon! It's a non-stop challenge where teams will collaborate, code, and compete to build groundbreaking solutions in just one day. Whether you're a seasoned developer or a first-time hacker, this is your chance to test your skills, learn new things, and make lasting connections."

</> DQ CODE FEST

The event consists of two rounds, with each team allowed a maximum of two members. Round 1, the coding prelims, will take place online on May 30th, 2024, while Round 2 is scheduled for June 6th, 2024, as an offline contest held at the college. Round 1 will be conducted on the HackerRank platform, requiring teams to have a HackerRank account.



PROJECT EXPO

From the mesmerising world of Artificial Intelligence and Machine Learning to crucial fields like Healthcare Analytics and Cybersecurity, our event brings you the pinnacle of technology and creativity. Explore a diverse array of projects from all engineering domains,



TECH ELOCUTION

It is a unique opportunity for individuals passionate about technology to demonstrate their ability to articulate and present technical information effectively in a creative way of their choice. Participants will have the chance to deliver speeches on a variety of tech-related topics, ranging from artificial intelligence and machine learning to data science and cyber security.



PATENT SUMMIT

Calling all innovators, creators, and tech enthusiasts! Are you ready to showcase your groundbreaking projects on the latest tech trends like Data Science, Cyber Security, Machine Learning, and more whether it's software or hardware.



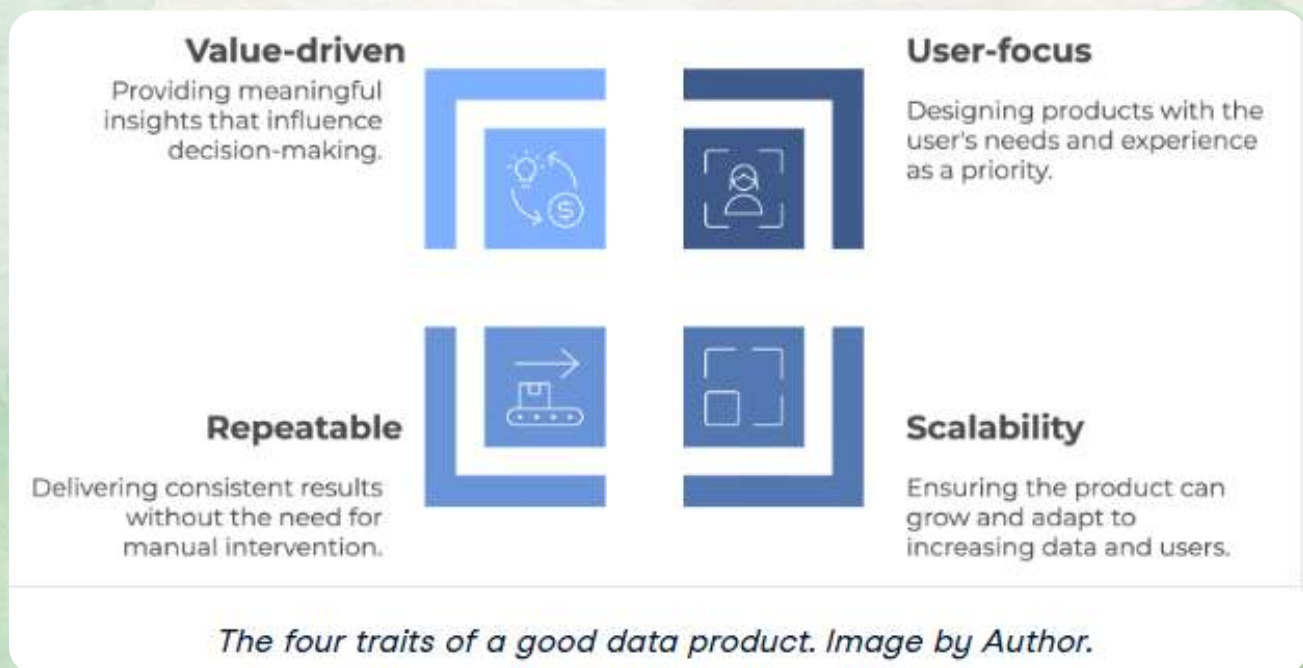
CASE STUDY AND DATA VISUALIZATION

If this is what you want to do then say no more and join our amazing event filled with exploration and research. Study what's going on and infer what's needed, Visualise your inferences in the most pleasing manner that can be understood by anyone.

ARTICLES

Article on Data Product:

Every business interaction generates data, but raw data alone is often scattered and difficult to utilize. A data product is a tool that processes and organizes this data to deliver meaningful insights. These products help businesses track trends, predict outcomes, and automate decisions, ultimately saving time and driving growth. From recommendation engines to predictive analytics, data products come in various forms, each designed to solve specific problems. Companies like Netflix, Google, and Spotify have successfully leveraged data products to enhance user experiences and decision-making. As AI and machine learning evolve, data products are becoming more intelligent and personalized. This article explores the definition, types, components, and future of data products in the digital era.



Data products are built on robust data pipelines, ensuring that information flows seamlessly from collection to analysis. They rely on scalable infrastructure, integrating diverse data sources for real-time insights. Effective data products prioritize usability, making complex data accessible through intuitive dashboards and APIs. As businesses become more data-driven, the role of data products in shaping strategies and innovation continues to grow.

Article on Data Science Tools:

Dr. T Sunil Kumar

Professor & HoD, CSE- (CyS, DS) and AI &DS

1. Apache Spark

Apache Spark is an open-source data processing and analytics engine that can handle large amounts of data upward of several petabytes, according to proponents. Spark's ability to rapidly process data has fuelled significant growth in the use of the platform since it was created in 2009, making the Spark project one of the largest open source communities among big data technologies.

2. Julia

Julia is an open source programming language used for numerical computing as well as machine learning and other kinds of data science applications. In a 2012 blog post announcing Julia, its four creators said they set out to design one language that addressed all their needs. A big goal was to avoid having to write programs in one language and convert them to another for execution.

3. Jupyter Notebook/Jupyter Lab

An open source web application, Jupyter Notebook enables interactive collaboration among data scientists, data engineers, mathematicians, researchers and other users. It's a computational notebook tool that can be used to create, edit and share code as well as explanatory text, images and other information. For example, Jupyter users can add software code, computations, comments, data visualizations and rich media representations of computation results to a single document, known as a notebook, which can then be shared with and revised by colleagues.

4. Keras

Keras is a programming interface that enables data scientists to access and use machine learning platforms more easily. It's an open source deep learning API and framework written in Python that runs on top of TensorFlow, PyTorch and JAX. Keras initially supported multiple back ends but was tied exclusively to TensorFlow starting with its 2.4.0 release in 2020. However, multiplatform support was restored in Keras 3.0, a full rewrite released in late 2023.

5. Matlab

Developed and sold by software vendor MathWorks since 1984, Matlab is a high-level programming language and analytics environment for numerical computing, mathematical modeling and data visualization. It's primarily used by conventional engineers and scientists to analyze data; design algorithms; and develop embedded systems for wireless communications, industrial control, signal processing and other applications. This is often in concert with a companion Simulink tool that offers model-based design and simulation capabilities.

6. Matplotlib

Matplotlib is an open source Python plotting library that's used to read, import and visualize data in analytics applications. Data scientists and other users can create static, animated and interactive data visualizations with Matplotlib, using it in Python scripts, the Python and IPython shells, Jupyter Notebook, JupyterLab, web application servers, and various GUI toolkits.

7. NumPy

Short for Numerical Python, NumPy is an open source Python library that's used widely in scientific computing, engineering, and data science and machine learning applications. The library consists of multidimensional array objects and routines for processing those arrays to enable various mathematical and logic functions. It also supports linear algebra, random number generation and other operations.

8. Pandas

Another popular open source Python library, pandas typically is used for data analysis and manipulation. Built on top of NumPy, it features two primary data structures: the Series one-dimensional array and the DataFrame, a two-dimensional structure for data manipulation with integrated indexing. Both can accept data from NumPy ndarrays and other inputs. A DataFrame can also incorporate multiple Series objects.

9. PyTorch

An open source framework used to build and train deep learning models based on neural networks, PyTorch is touted by its proponents for supporting fast and flexible experimentation as well as a seamless transition to production deployment. The Python library was designed to be easier to use than Torch, a precursor machine learning framework that's based on the Lua programming language. PyTorch also provides more flexibility and speed than Torch, according to its creators.

10. Scikit-learn

Scikit-learn is an open source machine learning library for Python that's built on the SciPy and NumPy scientific computing libraries as well as Matplotlib for plotting data. It supports both supervised and unsupervised machine learning and includes numerous algorithms and models, called estimators in scikit-learn parlance. Additionally, it provides functionality for model fitting, selection and evaluation and for data preprocessing and transformation.

11. SciPy

SciPy is another open source Python library that supports scientific computing uses. Short for Scientific Python, it features a set of mathematical algorithms and high-level commands and classes for data manipulation and visualization. It includes more than a dozen subpackages that contain algorithms and utilities for functions such as data optimization, integration and interpolation as well as algebraic equations, differential equations, image processing and statistics.

12. TensorFlow

TensorFlow is an open source machine learning platform developed by Google that's particularly popular for implementing deep learning neural networks. The platform takes inputs in the form of tensors that are akin to NumPy multidimensional arrays and then uses a graph structure to flow the data through a list of computational operations specified by developers. It also offers an eager execution programming environment that runs operations individually without graphs, which provides more flexibility for research and debugging machine learning models.

Article on Google's Gemini for Data Science:

Google Gemini, powered by the PaLM 2 model, has enhanced reasoning, coding, and multilingual capabilities, making it a powerful AI tool. Unlike ChatGPT, Gemini requires carefully structured prompts for optimal results. This article explores how to utilize Gemini to develop an end-to-end Fake News Detection project. From project planning to model deployment, we demonstrate step-by-step implementation using Gemini-generated prompts and code. We also compare Gemini's effectiveness in data preprocessing, exploratory analysis, feature engineering, and model selection. Furthermore, we fine-tune the model with hyperparameter optimization and deploy it as a Streamlit web app. By the end, you'll have a clear roadmap for leveraging Gemini in data science workflows.



Predict Fake News

Enter the news article:

NEW YORK (Reuters) - A second federal judge has taken the rare step of allowing a group suing for recor

Predict

The news article is fake.

We evaluate Gemini’s ability to generate synthetic training data and enhance model robustness. Additionally, we assess its strengths and limitations in handling complex linguistic patterns within fake news detection. The project includes real-world dataset selection, emphasizing Gemini’s role in automating tedious data preprocessing tasks. We also integrate explainability techniques to interpret model predictions, ensuring transparency and trust. Finally, we discuss best practices for optimizing Gemini-powered workflows in AI-driven applications.

Article on Ensemble Models for Data Science:

Introduction to Ensemble Models :

Ensemble models are advanced machine learning techniques that integrate multiple base models to enhance predictive accuracy and robustness. By leveraging the strengths of different algorithms, ensemble learning mitigates bias, reduces variance, and minimizes the risk of overfitting. This approach leads to more reliable and generalizable predictions.

- ***Types of Ensemble Learning :***

- ***Bagging (Bootstrap Aggregating):*** *This method trains multiple models on different subsets of data sampled with replacement. The final output is obtained by averaging (for regression) or majority voting (for classification), improving model stability and accuracy. A prominent example is Random Forest.*
- ***Boosting:*** *Boosting techniques, such as AdaBoost and Gradient Boosting, train models sequentially, assigning higher weights to misclassified instances. Each successive model corrects errors from the previous one, leading to improved performance.*
- ***Stacking:*** *In this approach, predictions from multiple base models are combined and passed to a meta-model, which learns how to optimally aggregate their outputs for superior predictions.*
- ***Cascading:*** *A sequential pipeline where the output of one model is refined and used as input for the next. This is particularly useful in applications like object detection, where initial models eliminate irrelevant data before specialized models conduct fine-grained classification.*

- ***Key Advantages of Ensemble Models***

- ✓ ***Higher Accuracy:*** *Reduces errors by aggregating multiple models.*
- ✓ ***Reduced Overfitting:*** *Balances bias and variance to improve model generalization.*
- ✓ ***Enhanced Generalization:*** *Performs effectively on unseen data.*
- ✓ ***Optimized Computational Efficiency:*** *Cascading models prioritize relevant predictions, reducing unnecessary computation.*

- ***Applications of Ensemble Learning :***

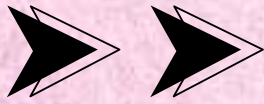
Ensemble methods are widely utilized across various domains, including:

- ***Fraud Detection*** – *Enhancing the identification of fraudulent transactions.*
- ***Recommendation Systems*** – *Improving personalization in e-commerce and streaming platforms.*
- ***Medical Diagnostics*** – *Increasing the reliability of disease prediction models.*
- ***Financial Forecasting*** – *Refining stock market and risk assessment models.*
- ***Computer Vision*** – *Strengthening image classification, object detection, and facial recognition.*

PLACEMENTS

The campus placement process for data science students typically involves a series of rigorous assessments, including technical interviews, coding challenges. Companies look for candidates who can not only crunch numbers but also communicate their findings effectively to drive business decisions. Witnessing students secure placements is truly a heartwarming and exhilarating experience. It is a testament to their hard work, dedication, and the transformative power of education And 17 students of our domain's first batch (2021-2025) have already secured their placements.

Name Of The Student(s)	Company Name	FTE
ATHUKURI HARSHA VARDHAN	London Stock Exchange Group	11.5 LPA
BALA UPASANA GANESH CHAITANYA BATTHINI	Deloitte-Consultant	7.6 LPA
1.BUKKAPATNAM SAI SASHANK 2.BOJJA MANOJ	Global Logic	5.57 LPA
CHOWDHARI SAI ESWAR	Infosys	9.5 LPA
GUGULOTHU BHAVANA	State Street	8.6 LPA
1.KANVAPURI SAI PRANEETHA 2.RANGU VIPIN KRISHNA 3.YENNAM BHOGENDRA SAI VIGNESH	Indium	8 LPA
KOTLA CHETAN KUMAR REDDY	Deloitte-DAG	7.6 LPA
KOUDURU PRANAVI	IBM	4.5 LPA
1.MUTHINENI AKSHARA 2.TODIMALA TARUNI 3.YADLAPATI SINDHU PRIYA	Chubb	12.07 LPA
SHUMAILAH USMANI	Oracle-Quality Analyst	19.18 LPA
TAMMISHETTI SATHWIK	Zenoti	11.47 LPA



NPTEL FROM DATA SCIENCE

**HIGHEST
PERFORMERS IN
THEIR RESPECTIVE
COURSES**

STUDENTS FROM THE CSE-DS PROGRAM HAVE CONSISTENTLY EXCELLED IN DIVERSE DOMAINS, ACHIEVING TOP PERCENTAGES THROUGH INNOVATIVE PROJECTS AND RESEARCH. IN DATA SCIENCE, THEY DEVELOPED PREDICTIVE MODELS WITH HIGH ACCURACY USING ADVANCED ML ALGORITHMS.

THEY IMPLEMENTED SECURE FRAMEWORKS TO MITIGATE POTENTIAL THREATS. THEIR SUCCESS STEMS FROM HANDS-ON LEARNING, TEAMWORK, AND APPLYING THEORETICAL KNOWLEDGE TO REAL-WORLD CHALLENGES. THE FOLLOWING ARE THE STUDENTS IN TOP PERFORMERS IN THE RESPECTIVE DOMAINS:

Name of the course	Student Name
Data Analytics with Python	<i>Adepu Yashaswini Gudikandula Avinash Naraparaju Tejaswini</i>
Cloud Computing	<i>Adepu Yashaswini Battula Sri Harsitha Bhanu Prasad Bellam Chidara Sai Pranay Gudikandula Avinash Kolisetty Kamal Kumar Vedasri Gunti</i>
Data Science for Engineers	<i>Kothapally Shiva Kumar</i>
Python for Data Science	<i>Laxmipathi Balaji Mittapalli</i>
Design and Analysis of Algorithms	<i>Goppu Narayana Nishanth</i>
Problem Solving Through C	<i>Thati Haripriya</i>

INTERNSHIPS

We are delighted to share the remarkable achievements of our talented students at VNR Vignana Jyothi Institute of Engineering and Technology specially the ones belonging to our Department as they embark on their journey towards a bright future through our upcoming campus placements. Our institution has always prioritized academic excellence, skill development, and holistic education, and the results are evident in the tremendous opportunities our students are about to achieve. 46% of the Data Science students from the 2021-2025 batch at VNRVJIET secured internships.



Students of Data science domain belonging to CSE-(CyS,DS) and AI&DS Department have successfully secured internships at prestigious tech companies and hubs such as JPMC, Oracle, NSL hub, JNTUH hub, bilvantis and Star Sports.

These internships provide students with invaluable industry exposure and hands-on experience with cutting-edge technologies.

DATA SCIENCE students have a track record of securing internships that reflect their dedication, academic excellence, and ambition. These experiences not only prepare them for successful careers but also contribute to the college's reputation for producing well-rounded and accomplished graduates.



SUGGESTIONS & FEEDBACK



newsletteratdatascience@gmail.com

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SUGGESTIONS/FEEDBACK

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We invite you to stay connected with us through our upcoming editions, events, and club initiatives. Your feedback is invaluable, and we look forward to hearing your thoughts and suggestions. We also encourage you to send articles or blogs written by you to the above mentioned email.



We extend our heartfelt gratitude for choosing to embark on a journey of knowledge with Data Science Digest. This newsletter is a work of passion and dedication, made possible by the collaborative efforts of our editorial team. We strive to bring you thought-provoking content that not only informs but also sparks new ideas and perspectives.

Professional Student Chapters



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