MARCH 2024

AI CORPUS

INSIGHTS

AUTOMATION

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1000001
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010001
DATA MINING

DECISION MAKING

ANALYTICS AS A SERVICE

TECHNOLOGY

BUSINESS ANALYTICS

PREDICTIVE MODELING

AAFT | SCHOOL OF DATA SCIENCE

Contents

FROM THE
PRESIDENT'S DESK

Sandeep Marwah

We are all travellers on the information highway and citizens of the modern society. Information is the most important capital in modern times. Our lives are closely interlinked with the media, the disseminator of information. We are in the business of training personnel in becoming the best informed, responsible and committed professionals with a strong sense of integrity.

At Asian Education Group (AEG) we are conscious of the huge responsibility we carry on our shoulders. We are aware that systematic education, and training and mandatory stellar as well as industry exposure are necessary for preparing students to be excellent professionals in print and electronic journalism, cinema, radio, television and computer centric multimedia fields. We take pride in being the only institute in Asia to have such a huge professional infrastructure of well-equipped studios, films, & libraries and highly qualified and experienced faculty to train our students. Our close links with the Mumbai film industry puts us in an envious position in comparison to the other media schools.

It is no wonder that we draw the highest number of students to our institute and have made a record number of over a thousand films since our inception, a no mean achievement by any standard.

Our Education Group covers, Asian Business School, Asian Academy of Film & Television, School of Mass Communication, School of Fashion and Design, School of Communication, School of Multimedia, School of Advertising, School of Fine Arts, School of Creative Business, creates unique synergies and imparts 360 degree training to students right from ideation to the final marketing and dissemination of the media product.

A balanced study of the academic and practical exposure system creates understanding of various mediums of communication operate; what are the effects of media on the audience and what is the nature of media auxiliaries such as advertising and public relations etc. Asian Education Group offers both graduate and post graduate level courses in management, print, electronic media and film to equip the students with adequate knowledge and skill in their chosen field of creative work.

FROM THE
DIRECTOR'S DESK
Dr. Ajay Kumar

Welcome to the School of Data Science. We firmly believe that every student, whoever joins us, is a talent to be tapped. We place confidence in making every student learn rather than in just teaching. With our student-centric efforts, we are determined to draw out the best in each one of them. Our philosophy is about the continuous evaluation of the student. We nurture a technical environment that is personalized, innovative, and progressive. The School of Data Science provides its students and the community with various forums to develop an environment to develop Analytics projects, Research projects and Research papers. Our active involvement with industry professionals, Data scientists and Top Researchers through master classes, workshops, seminars, and guest lectures reinforces the classroom experience. Students learn to develop and build networks, which helps them to create professional, productive relationships that last a lifetime. Our commitment to quality education continues to flourish as is evidenced by the outstanding work created by SODS students. You can explore the students Business Intelligence based projects, created visualizations to witness the technical skill and level of creativity in their work. We are committed to furthering the excellence of mathematical foundations based on Statistics Probability, Big Data & Analytics, Cloud Computing, Machine Learning, Deep Learning, Natural Language Processing and Computer Vision. As you continue to look for the Statistical Knowledge, Machine learning & Deep learning projects, NLP and Computer Vision based school that fits, we are sure all your questions will be answered when you visit our campus.

The program offers rigorous theoretical and practical training in data management,programming, statistics, machine learning, and artificial intelligence. It has been developed to advance careers. Top-notch instructors, first-rate campus amenities, and industry speaker series, which offer the most recent research, best practices, and domain knowledge to the programs varied student body, are essential components. We recently added courses on current subjects that cover the most recent developments in data science and its applications in the business domain as part of our ongoing commitment to giving our students the best education possible and preparing them for the workplace.

FROM THE
DEAN'S DESK

Ashish Garg

Welcome to the School of Data Science. We believe in unlocking the potential of every student who walks through our doors. Our approach is student-centric, focusing on nurturing talent through experiential learning and hands-on exploration.

At the School of Data Science, we embrace a culture of continuous learning and growth. We encourage our students to push boundaries and explore new frontiers in the world of data analysis and machine learning. The era of data science is about thinking differently and finding innovative solutions to complex problems.

Our school fosters an environment that is both personalized and progressive. We provide numerous opportunities for students to engage with industry professionals, participate in workshops and seminars, and collaborate on real-world projects. Through these experiences, students develop the skills and networks necessary to thrive in the rapidly evolving field of artificial intelligence.

Our commitment to excellence is evident in the outstanding work produced by our students. From cutting-edge research to impactful projects, our students consistently demonstrate technical expertise and creativity in their work.

At the School of Data Science, we empower students to bring their ideas to life and make a meaningful impact in the world. With a diverse range of courses and programs, students have the flexibility to tailor their education to their interests and career goals.

As you explore your options for a career in data science, we invite you to visit our campus and experience firsthand the vibrant community and innovative spirit that define our school. We are confident that you will find the inspiration and resources you need to succeed in this exciting field.

We look forward to welcoming you to the School of Data Science and supporting you on your journey to becoming a leader in the world of AI, data analytics, big data and machine learning.

Dr. AASHIMA BANGIA
HOD , Ph.D. in Applied Mathematics

She has more than 6 years of core research experience in building mathematical models based on machine learning techniques and conducting predictive analysis having research areas: Non-Linear Dynamical Systems that consist of complex Multi-faceted Hybrid Systems, Knowledge-based systems, Data Analysis using Wavelets and Fractals, Data mining and Text Mining, Machine learning. Published around 26 research articles/book chapters/proceedings in various peer-reviewed (SCI/Scopus/Web of Science) international and national journals and conferences. Presented research work in 12 esteemed conferences of international/national repute. An IBM certified Data Science Professional. Completed 12 certifications from Coursera on AI, ML and DL. Having knowledge of Programming languages: Advanced Excel, Python, Matlab, Mathematica, LaTex. Working on Data Visualization; Analysis through Artificial Intelligence , Machine Learning (SVM, CART, Decision trees, Logistic/PLS Regression, Factor Analysis/PCA, Random Forest, KNN, SVD), Reinforcement learning: Markov Decision processes, Q-learning, Deep Q-Networks; Deep Learning (ANN, CNN, RNN, LSTM); Data mining and warehousing; Soft Computing through Fuzzy Logic; Prediction of Multi-Faceted Models; Predictive Regression; Forecasting through Performance Analysis such as RMSE, MSE, MAE, R2, MAPE, MASE; Computational Linguistics through NLP, Semantic Analysis, Topic Modelling.

Mr. NITISH PATIL
Assistant Professor

He is B.Tech, M.Tech from Computer Science Engineering. Having Specialization with Data Science & Cloud Computing. Having more than 12 years of experience in Academics and Industry, Project development based on Data Science, Data Visualization, Database Development: MySQL, Oracle, Cloud Computing - AWS. Have Published 11 Research papers in Data Mining, Web mining and Artificial Intelligence areas on reputed journals, National/ International Conferences & published Patent in "Clinical Decision Support System using Artificial Intelligence". Certification in Structured Database Oracle, Unstructured Database MongoDB; Machine learning tools: Dataiku, Python Programming from university of Michigan. Knowledge on Big Data handling tools: Hadoop, Sqoop, Hive, HBase, Cassandra, Kafka, NiFi; Working on Visualization tools Tableau, Power BI. Working on Research areas Machine learning algorithms (Logistic, KNN, SVM, Kmeans), Deep learning algorithms (LSTM,CNN,RNN), Natural Language Processing, Computer vision & MLOps.

Ms. NEEMA JHA
Assistant Professor

She is an Executive Post Graduate Program in Data Science (with specialization in Business Intelligence & Data Analytics) from IIIT, Bangalore and MTech from GGSIPU Delhi. With a total span of more than 6 years of experience in Academia, working as an Assistant Professor in an utmost demanding and engrossing problems with proficient educationists. Experience in different visualization tools. Working on the implementation of Machine Learning and AI techniques to solve different analytical problems. Programming Languages: SQL, Python, C++, Data Visualizations: Tableau, Power BI, Excel Statistical Techniques: Descriptive Statistics, Inferential Statistics, Regression Analysis (Linear Regression, Logistic Regression, K-Means clustering), Statistical Analysis. MTech research done on "SYNTHESIS AND GROWTH OF L-ARGININE HYDROBROMIDE MONOHYDRATE SINGLE CRYSTAL BY SEST AND SR METHODS AND ITS CHARACTERIZATION FOR NON- LINEAR OPTICAL APPLICATIONS" which mainly focuses on the synthesis and growth of semi organic single crystal by slow evaporation solution growth and Sankarnarayanan-Ramasamy methods.

Ms. MANPREET KAUR ,
Assistant Professor

She is a Master's degree in Mathematics from the St. Stephens College, University of Delhi, Ms. Bhatia has been actively engaged in teaching and research having more than 9 years of experience. Her academic journey includes notable roles as an Assistant Professor at various colleges where she served as the Quantitative Competency Coach in the Placement Cell. She is an enthusiastic educator who has taught undergraduate students' courses such as Business Analytics, Data Analysis, Mathematics, and Statistics. Her teaching technique includes hands-on implementation with various software tools such as R, Excel, and visualization platforms such as Power BI and Google Data Studio. Notably, she has served as Program Director and led countless financial analysis training sessions, considerably contributing to students' mathematical aptitude growth. With a particular emphasis on predictive analytics, her research interests cover a wide range of applied mathematics, R programming, and machine learning topics. She has written research articles about the study of stock market volatility characteristics. Her areas of competence include forecasting models, Excel and R-Studio data analysis, and statistical predictive modeling. Apart from her scholarly responsibilities, has been instrumental in several initiatives involving specialists from IIM-A and other national organizations. She is continuing her education in applied mathematics and data science, and she has a research project on the way to build a prediction model for short-term stock price analysis.

Mr. AISHWARY SHUKLA

Assistant Professor

He is a professional specializing in Data Science with more than 6 years of experience. He has collaborated with distinguished clients, namely UpGrad and Lovely Professional University, making significant contributions to the intersections of education and technology. He has been acknowledged for his contribution as a proficient trainer, building ground breaking analytical and predictive AI and ML models. He is a distinguished speaker at the E-Summit on Data Science, Machine Learning, and AI at IIT Kanpur, 2023. His expertise lies in the strategic handling of data, conducting meticulous analysis, and applying advanced statistical inferences to address real-world challenges through the adept utilization of machine learning techniques. He has been instrumental in spearheading the development of state-of-the-art AI models, employing sophisticated exploratory data analysis (EDA), visualization, and both supervised and unsupervised machine learning methodologies. Currently pursuing an M.Tech in AI and ML at BITS Pilani, holds an IBM PG certification in Data Science, Machine Learning, and Deep Learning, along with a Bachelor in Technology.

Artificial Intelligence

Ronit sarkar

Artificial Intelligence, or AI, is like having a clever friend in the world of computers. It's a special kind of technology that allows machines to learn, think, and solve problems, almost like magic!

What Does AI Do?

Imagine you have a robot friend. At first, it might not know much, but the more you teach it, the smarter it becomes. AI works a bit like that. It helps computers learn and make decisions on their own. So , instead of being told exactly what to do, machines with AI can figure things out by themselves.

How Does AI Learn?

AI uses something called "algorithms." These are like sets of instructions that help computers learn from information and experiences. It's a bit like teaching a computer to play a game. At first, it might not be very good, but as it plays more, it learns and gets better. That's the magic of AI!

Everyday AI

You might already be friends with AI without even knowing it. Have you ever talked to your smart speaker, like Alexa or Siri? These are AI helpers. They understand what you say and do tasks for you, like playing music or answering questions.

AI also helps your video game characters move and react like real players. It's like having a buddy inside your game who can learn and adapt to how you play.

Types of AI

There are different kinds of AI:

Narrow AI: This type is good at one thing, like recognizing faces in photos or helping you chat with your phone.

General AI: This is like having a super-smart robot friend who can do lots of different things, almost as well as a human.

Machine Learning: This is a special skill AI has. It can learn and get better without being told everything. It's like a computer that can practice and improve on its own.

Why is AI Cool?

AI makes life easier and more fun. It helps doctors understand illnesses, makes cars drive themselves, and even suggests movies you might like. It's like having a super-smart helper that's always learning new tricks.

But we also need to be careful with AI. We want it to be fair and not to make mistakes. Smart people are working to make sure AI is used in good ways and doesn't do anything it's not supposed to.

The Future of AI

As we keep teaching AI new things, who knows what amazing stuff it will do in the future? Maybe it'll help us explore space, cure diseases, or even invent cool gadgets we haven't even dreamed of yet.

So, next time you ask your computer or phone to do something smart, remember, you're talking to a bit of AI magic! It's a friend in the digital world, always ready to lend a helping hand.

Evolving from Big Data to "Small Data" - TinyML makes its way into the AI World

Gauri Sharan

Big Data is a term used to describe the rapid growth of digital data we create, collect, and analyze. The ML algorithms we use to process the data are also quite large; it's not just big data. It has approximately 175 billion parameters, making it the most extensive and complex system capable of simulating human language. It is one of the data science future trends.

It may be fine if you're working with cloud-based systems with limitless bandwidth, but that won't cover all the use cases where ML can be helpful. Hence, "small data" has evolved as a means of processing data quickly and cognitively in time-sensitive, bandwidth-constrained situations. There is a close connection between edge computing and this concept. When trying to avoid a traffic collision in an emergency, self-driving cars cannot rely on a centralized cloud server to send and receive data.

TinyML algorithms are designed to consume the least amount of space possible and run on low-powered hardware. All kinds of embedded systems will use in 2023, from home appliances to wearables, cars, agricultural machinery, and industrial equipment, making them better and more valuable.

TinyML, or tiny machine learning, is a rapidly growing field that focuses on the development and deployment of machine learning models on low-power, low-footprint microcontroller devices. This allows for the implementation of machine learning algorithms on small, battery-operated devices, enabling a wide range of always-on use cases.

The goal of TinyML is to improve the efficiency of deep learning AI systems by requiring less computation, fewer engineers, and less data. This facilitates the giant market of edge AI and AIoT. TinyML is at the intersection of embedded machine learning applications, algorithms, hardware, and software. It differs from mainstream machine learning in that it requires not only software expertise but also embedded-hardware expertise.

The main difference between TinyML and traditional machine learning is that TinyML allows these models to perform various functions on smaller devices. Many tools and architectures deployed in traditional machine learning workflows are used when building edge-device applications. However, TinyML devices measure memory in kilobytes or megabytes, while traditional platforms like smartphones and laptops have memory measuring in gigabytes.

There are many exciting developments happening in the field of TinyML, including new hardware, algorithms, and software capable of performing on-device sensor data analytics at extremely low power. The tinyML Foundation is a community for ultra-low power machine learning at the edge and hosts events such as the tinyML Technical Forum and the EMEA Innovation Forum.

Applications that are making use of TinyML right now are:
- Visual and audio wake words that trigger an action when a person is detected in an image or a keyword is spoken.
- Predictive maintenance on industrial machines using sensors to continuously monitor for anomalous behavior.
- Gesture and activity detection for medical, consumer, and agricultural devices, such as gait analysis, fall detection or animal health monitoring.
- Keyword spotting.
- Object recognition and classification.

- Audio detection.
- Machine monitoring .

Some examples of TinyML applications are Google Assistant and Alexa. The devices are always on and analyze your voice to detect the wake word.

There are many examples of TinyML devices. Some examples of applications that are making use of TinyML right now are:

- Visual and audio wake words that trigger an action when a person is detected in an image or a keyword is spoken.
- Predictive maintenance on industrial machines using sensors to continuously monitor for anomalous behavior.
- Gesture and activity detection for medical, consumer, and agricultural devices, such as gait analysis, fall detection or animal health monitoring.

Some examples of TinyML devices include the Arduino Nano 33 BLE Sense, the SparkFun Edge, and the STMicroelectronics STM32 Discovery Kit2. These devices are small, low-power microcontrollers that can run machine learning models on-device, enabling a wide range of always-on use cases.

Advacements in Explainable AI encourage Trust and Transparency in Artificial Intelligence Systems

Sameer Singh

Researchers and developers are making revolutionary advancements in Explainable AI (XAI), which represents a significant step towards promoting trust and transparency in artificial intelligence (AI) systems. These developments are aimed at revolutionising industries and guaranteeing accountability by offering simple and understandable justifications for AI-driven decisions.

Google definition of Explainable AI is - "It a set of tools and frameworks to help you understand and interpret predictions made by your machine learning models. With it, you can debug and improve model performance, and help others understand your models' behaviour."

Explaining decisions made by artificial intelligence systems can help provide transparency on how the model arrives at its decision. Explainable AI, for example, could be used to justify an autonomous vehicle's decision not to stop or slow down before colliding with a pedestrian crossing the street.

One of the key advancements in XAI is the development of rule-based approaches. These methods provide explicit conditions under which an AI system makes a specific decision by producing decision rules or logical expressions. This makes it possible for people to understand how decisions are made and to check the accuracy and fairness of the results.

The implications of these advancements in XAI are far-reaching. In the healthcare industry, explainable AI, for instance, enables doctors to understand the justification behind diagnoses made with AI assistance, improving patient care. It supports the financial sector's efforts to ensure fair lending practices by assisting regulators and analysts in identifying potential biases in credit scoring algorithms.

A delicate balance between accuracy and transparency is what AI will depend on in the future. These two vital elements are connected by explainable AI, which creates AI systems that are reliable, morally upright, and accountable.

The advancements in Explainable AI hold incredible potential as AI becomes a crucial part of our daily lives. With growing knowledge and research in this area, the time will soon come when artificial intelligence will be synonymous with transparency and interpretability, ensuring that these game-changing technologies serve humanity's best interests.

TIMELINE
Machine Learning

1956
BIRTH OF ARTIFICIAL INTELLIGENCE

The field of Artificial Intelligence is born, laying the foundation for future advancements in machine learning.

1969
FIRST NEURAL NETWORK

The first neural network is developed, revolutionizing the field of machine learning and paving the way for deep learning models.

1997
DEEP BLUE VS. KASPAROV

IBM's Deep Blue defeats chess champion Garry Kasparov, marking a significant milestone in machine learning's ability to outperform human experts in specific domains.

2014
GENERATIVE ADVERSARIAL NETWORKS (GANS)

GANs are introduced, enabling the generation of realistic synthetic data, impacting fields like image synthesis and data augmentation.

2012
IMAGENET CHALLENGE

Convolutional Neural Networks (CNN) Demonstrate remarkable accuracy in image classification, setting a new benchmark for computer vision tasks.

2006
RISE OF DEEP LEARNING

Deep learning gains traction with the introduction of Deep Neural Networks and the s uccessful training of complex models on massive datasets.

2017
ALPHAGO TRIUMPH

DeepMinds AlphaGo defeats world champion Go player Ke Jie, showcasing the power of reinforcement learning and marking a milestone in gaming AI.

2020'S
TRANSFORMERS REVOLUTIONIZE NLP

Transformers, such as OpenAIs GPT, revolutionize Natural Language Processing (NLP), achieving State-of-the-art Performance in tasks like language translation and text generation.

ABHAY KUMAR

Understanding the Role of Data Science in Smart Cities: Enhancing Urban Efficiency and Livability

Abhay Kumar

Data science is rapidly transforming the way we live, work, and play. In the realm of urban planning, data science is being used to create smart cities that are more efficient, livable, and sustainable.

What is a smart city?

A smart city is a city that uses information and communication technologies (ICT) to improve the quality of life for its citizens. This can include things like using sensors to collect data on traffic flow, energy usage, and air quality; using analytics to make better decisions about resource allocation; and using apps and other digital tools to make it easier for citizens to interact with their government and each other.

How is data science used in smart cities?

Data science is used in smart cities to collect, analyze, and visualize data from a variety of sources. This data can be used to improve urban planning, transportation, public safety, energy efficiency, and more. For example, data science can be used to:

- **Optimize traffic flow**: By tracking traffic patterns and identifying bottlenecks, data science can be used to develop real-time traffic solutions that reduce congestion and improve air quality.
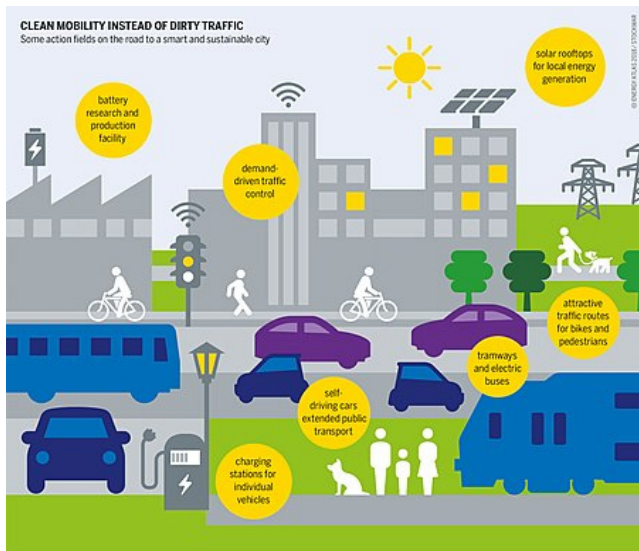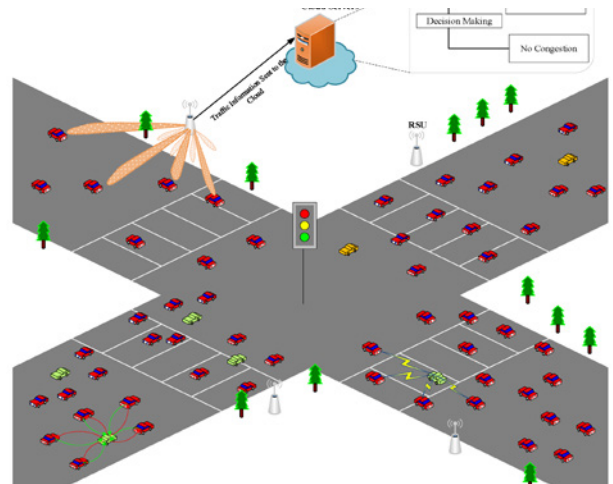
- **Improve public safety**: By analyzing crime data, data science can be used to identify areas where crime is most likely to occur and deploy resources accordingly. Data science can also be used to develop predictive models that can help law enforcement prevent crime before it happens

- **Make energy more efficient:** By tracking energy usage data, data science can be used to identify ways to reduce energy consumption in buildings, homes, and businesses. Data science can also be used to develop smart grid technologies that can better manage energy distribution and demand.

- **Create more livable cities:** By analyzing data on things like air quality, noise pollution, and crime rates, data science can be used to identify ways to make cities more livable for residents. Data science can also be used to develop apps and other digital tools that can help citizens connect with each other and their government.

The future of smart cities

The use of data science in smart cities is still in its early stages, but the potential benefits are enormous. As data science continues to evolve, we can expect to see even more innovative and impactful applications of data science in smart cities in the years to come.

Some of the potential future applications of data science in smart cities include:

- **Personalized transportation**: Data science can be used to develop personalized transportation solutions that match people's needs and preferences. For example, data science could be used to recommend the best route to work, suggest alternative transportation options if there is traffic, or even book a ride-share car.

- **Smart healthcare:** Data science can be used to improve healthcare in smart cities by providing personalized care, tracking patient outcomes, and managing chronic diseases. For example, data science could be used to develop apps that help people manage their diabetes or track their heart health.

- **Sustainable urban planning:** Data science can be used to develop more sustainable uban   planning strategies by tracking energy usage, water consumption, and waste production. Data science can also be used to identify ways to   reduce the environmental impact of cities.

The possibilities are endless. As data science continues to develop, we can expect to see even more innovative and impactful applications of data science in smart cities in the years to come.

A Glimpse of Career Growth in Data Science

Data Science is a multidisciplinary field that combines statistics , mathematics , computer science and domain expertise to extract valuable insights and knowledge from complex and large datasets . It involves the use of various techniques , such as data mining , machine leaning and predictive modeling to uncover patterns , make predictions and drive data - informed decisions .
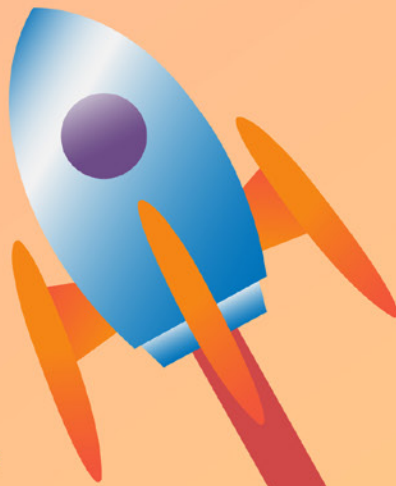
Continuous Learning

The field of data science is dynamic, requiring continuous learning and up skilling to stay updated with the latest tools, techniques, and advancements.

04

Lucrative Salaries

Data Science professionals are often rewarded with competitive salaries due to their specialized skill set and organizations.

03

Diverse Opportunities

Abundant opportunities in ares such as data engineering , machine leaning ,artificial intelligence ,data visualization and data strategy

02

High Demand

The ever - increasing demand for skilled data scientists across industries , driven by the exponential growth of data and the need for actionable insights

01

ABHAY KUMAR

Understanding Excel Dashboard
Vibhanshu Kumar Singh

An Excel dashboard is a powerful tool for visualizing and analysing data in a clear and concise way. It's like a visual summary of your data, bringing together key metrics and insights onto a single screen. Think of it as a personalized cockpit for your information, allowing you to quickly grasp the current state of things and identify trends or areas for improvement.

Characteristics of Excel dashboard:

Data Source:
Dashboards are built on data, which is often sourced from Excel spreadsheets, databases, or external sources. The data should be organized and structured for easy analysis. In this Excel Dashboard Data is taken from ICC official website i.e. www.icc-cricket.com

Visualization Elements:
Charts and Graphs: Represent data visually through charts like bar graphs, line charts, pie charts, etc., to highlight trends and comparisons.Tables: Display detailed data in a structured format for easy reference.

Interactivity:
Slicers allows to select the data of desired team.

Dashboard Layout:
Organize elements in a logical and intuitive manner.

Excel Dashboard: ICC Men's Cricket World Cup 2023
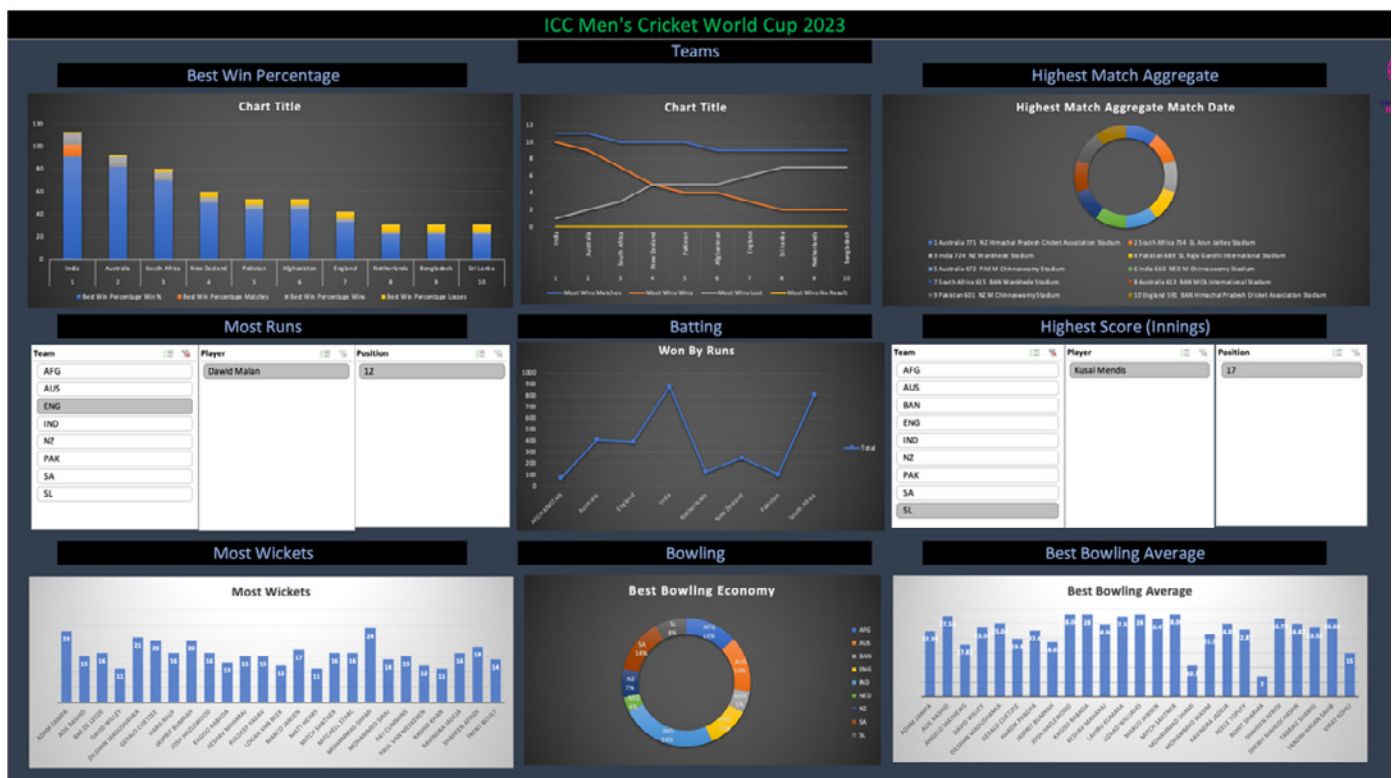
Benefits of using Excel dashboards:

Improved decision-making: By providing a clear overview of your data, dashboards can help you make informed decisions faster.

Increased efficiency: Dashboards save time by eliminating the need to manually analyse large amounts of data.

Enhanced communication: Dashboards can be used to share information with stakeholders in a clear and concise way.

Better understanding of your data: Visualizing your data can help you identify patterns and trends that you might not have noticed otherwise.

Excel dashboards are versatile tools that can be used across various industries and departments to track performance, make informed decisions, and communicate insights effectively.

DASHBOARD: Indian Premier League Analysis
Suraj Kumar Pandit
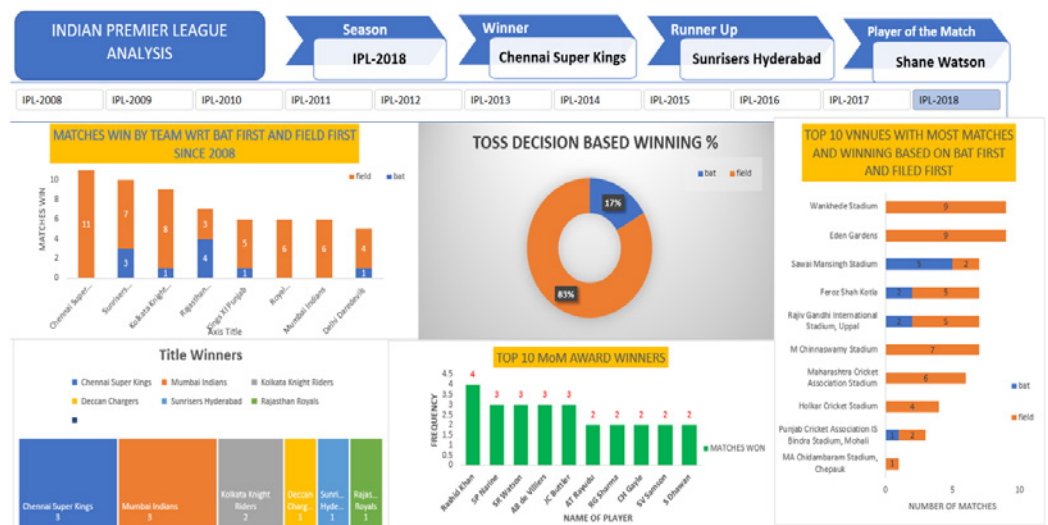
IPL-2008
IPL-2009
IPL-2010
IPL-2011
IPL-2012
IPL-2013
IPL-2014
IPL-2015
IPL-2016
IPL-2017
IPL-2018

Matches win by team bat first and field first :- field first most time of winner.

Toss decision based winning %:- 83% field first winner.

Top `10 vennues with most matches and winning based on bat first and field first:- wankhed stadium most winner in chose first field.

Title winners:- Chennai super king is tilte winner in 2018

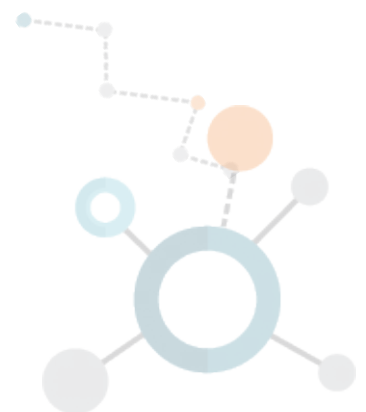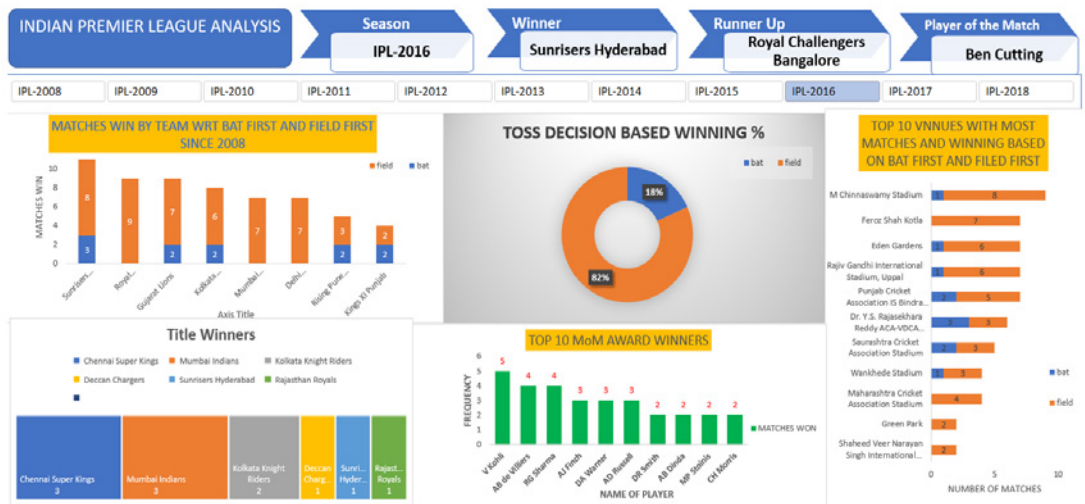Top 10 mom Award winners:- Rashid khan in 2018 IPL
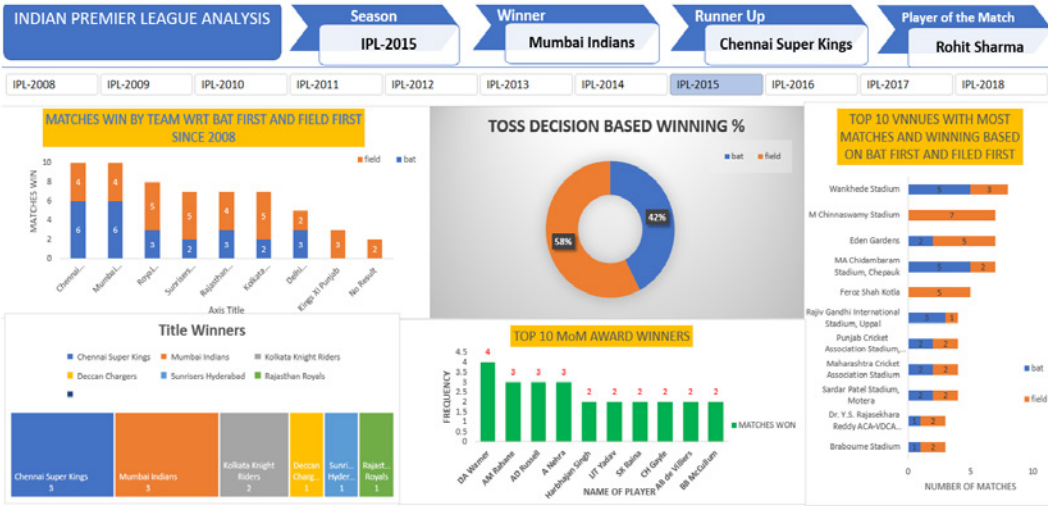
Title winners:-
Mumbai indian

Top 10 mom Award winners:- BA STOCKS most time of take mom award winner

Matches win by team bat first and field first :- field first winner most of time

Toss decision based winning %:- 81% first field winner

Top `10 vennues with most matches and winning based on bat first and field first:- wankhede stadium field first 7 times winner out of 8.

Title winners:-
Mumbai indian

Top 10 mom Award winners:- BA STOCKS most time of take mom award winner

Matches win by team bat first and field first :- field first winner most of time

Toss decision based winning %:- 81% first field winner

Top `10 vennues with most matches and winning based on bat first and field first:- wankhede stadium field first 7 times winner out of 8.

Season — IPL-2015
Winner — Mumbai Indians
Runner Up — Chennai Super Kings
Player of the Match — Rohit Sharma

IPL-2008 | IPL-2009 | IPL-2010 | IPL-2011 | IPL-2012 | IPL-2013 | IPL-2014 | IPL-2015 | IPL-2016 | IPL-2017 | IPL-2018

MATCHES WIN BY TEAM WRT BAT FIRST AND FIELD FIRST SINCE 2008

TOSS DECISION BASED WINNING %

TOP 10 VNNUES WITH MOST MATCHES AND WINNING BASED ON BAT FIRST AND FILED FIRST

Title Winners

TOP 10 MoM AWARD WINNERS

Matches win by team bat first and field first :- bat first winner most of time

Toss decision based winning %:-58% first field winner

Top `10 vennues with most matches and winning based on bat first and field first:- wankhede stadium bat first 5 times winner out of 8..
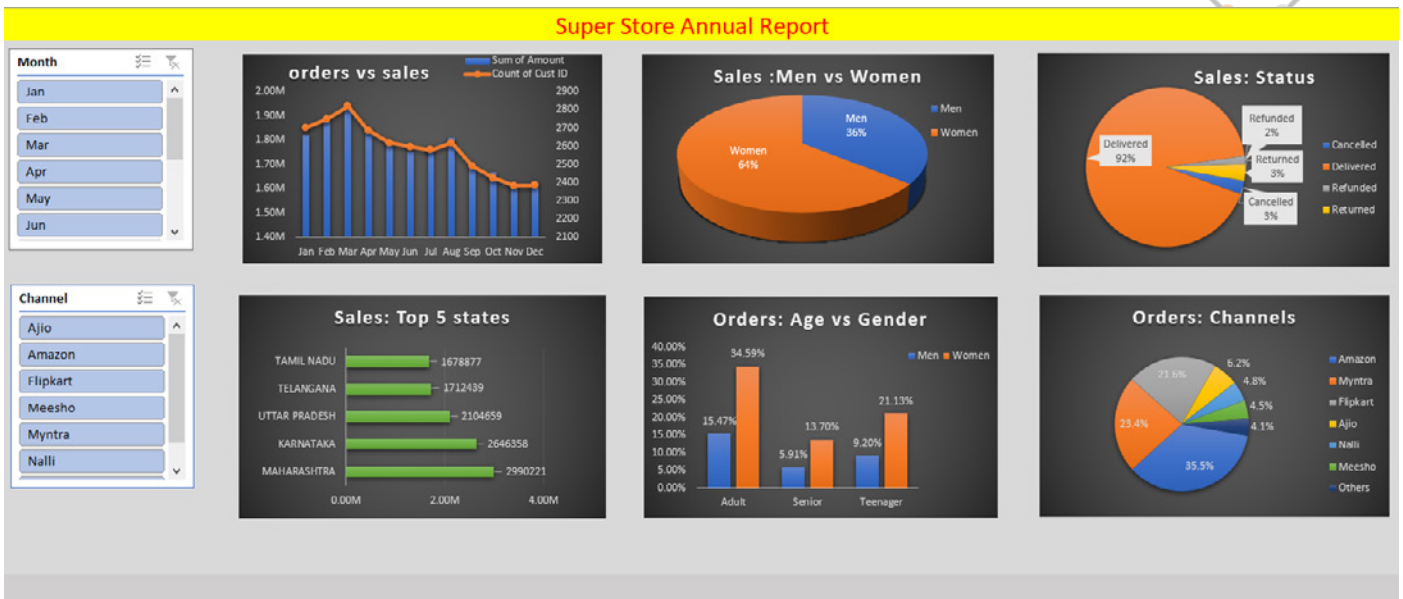
Title winners:- Mumbai indians

Top 10 mom Award winners:- DA wamer most time of take
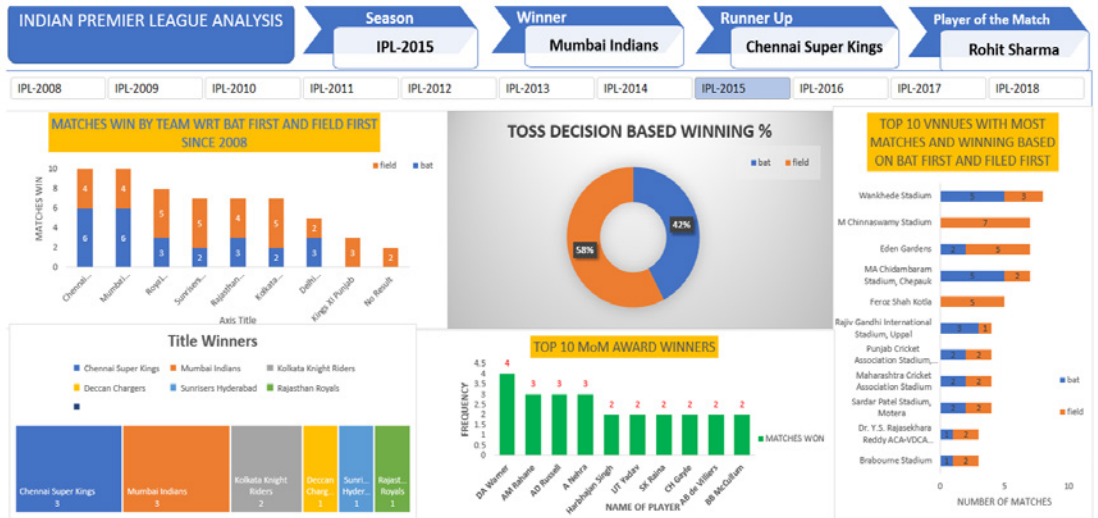
# DASHBOARD: Super Store Annual Report
Anant Choudhry

Insights

1. WOMEN are more likely to buy compared to MEN
2. MAHARASHTRA,KARNATAKA and UTTAR PRADESH are the top 3 states
3. Adult age group (30-49 yrs) is maximum contributing
4. AMAZON , FLIPKART and MYNTRA channels are max countribting.

Final conclusion to improve Vrinda store sales:

Target women customers of age group(30-49 yrs) live in maharashtra and karnataka by showing ads/offers available on amazon and flipkart
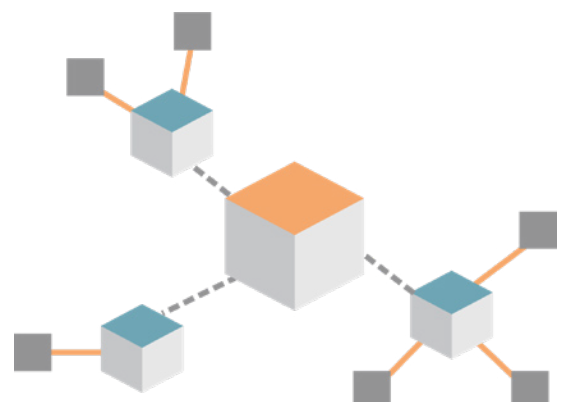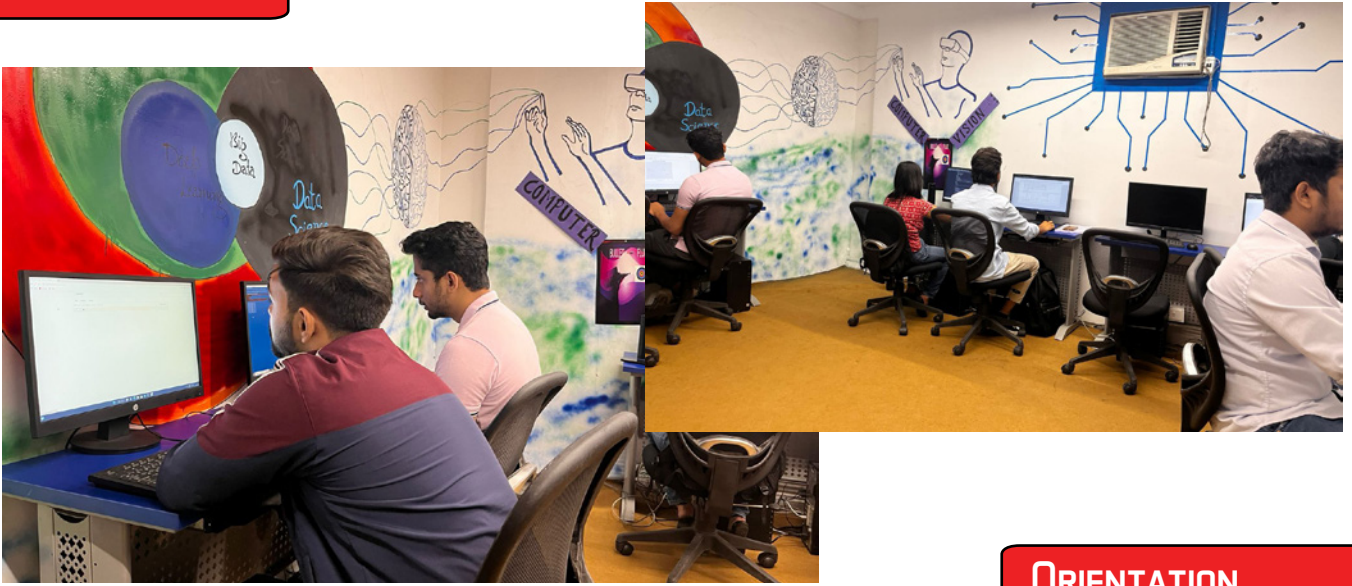
AAFT SCHOOL OF DATA SCIENCE

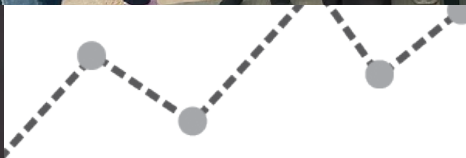presents

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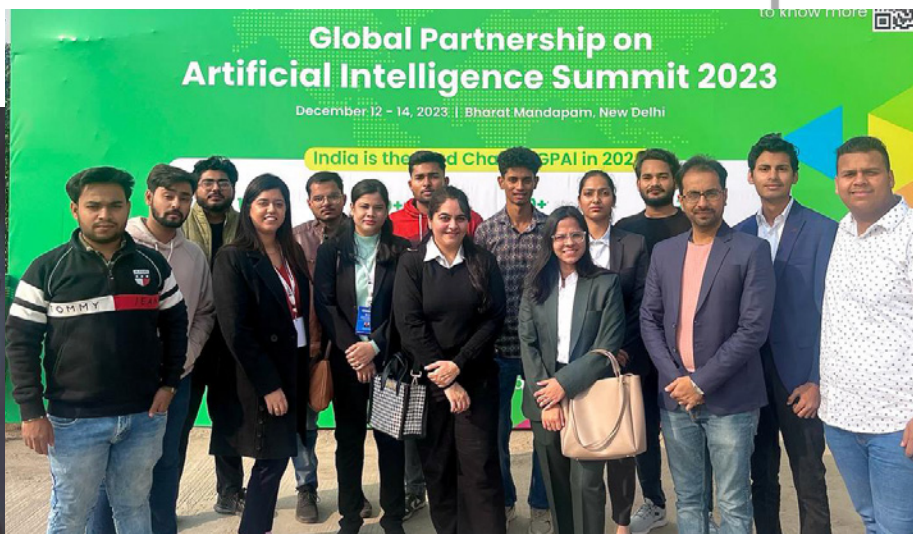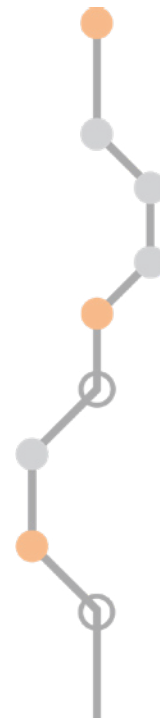
with

Guest Speaker

DR. MANI MADHUKAR

PROGRAM MANAGER
GLOBAL UNIVERSITY PROGRAMS
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ARTIFICIAL INTELLIGENCE
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EMOTIONAL SYNERGY: THE EMERGING FRONTIER OF A.I. INTERACTIONS WITH HUMAN MINDS AND HEARTS :

DR. AASHIMA BANGIA

Artificial Intelligence (AI) has witnessed remarkable advancements in recent years, and researchers are exploring the integration of Theory of Mind (ToM) into AI systems, aiming to imbue machines with the ability to understand and attribute mental states to themselves and others. This theoretical concept, rooted in cognitive science and psychology, holds the promise of revolutionizing human-AI interactions across various domains. This abstract delves into the potential benefits that society could accrue from the development and integration of AI with ToM capabilities. The introduction of AI with ToM has the potential to redefine human-AI collaboration. Enhanced understanding of human emotions, intentions, and needs enables AI systems to engage in more natural and effective interactions, spanning virtual assistants, educational tools, and beyond. The user experience is elevated as AI becomes more attuned to the nuances of human communication, fostering a deeper connection between humans and machines. In education, AI with ToM becomes a dynamic partner in the learning journey. The adaptive nature of these systems allows for personalized educational content and strategies based on the cognitive and emotional needs of individual learners. This innovative approach has the potential to reshape the educational landscape and improve academic outcomes. In fields such as healthcare and assistive technologies, AI with ToM can play a pivotal role in providing personalized and empathetic support. From mental health assistance to caregiving for individuals with cognitive impairments, these AI systems offer a new frontier in compassionate and tailored care, augmenting human efforts in addressing unique needs. The collaborative landscape, whether involving human-AI partnerships or multiple AI systems, stands to benefit from ToM capabilities. Coordinated efforts become more efficient and effective, impacting areas such as research, business, and emergency response. The synergy between humans and AI, facilitated by a mutual understanding of mental states, can potentially elevate the outcomes of teamwork across various domains. Personalization takes centre stage as AI systems with ToM tailor their services to individual preferences, beliefs, and emotions. From content recommendations and marketing to entertainment, users experience a level of customization that aligns more closely with their interests, enhancing satisfaction and engagement. Beyond personalization, AI with ToM extends its impact to socially intelligent robotics. Social robots equipped with these capabilities navigate social interactions with a heightened level of effectiveness. Applications in elder care, education, and support for individuals with social communication challenges underscore the potential societal benefits of such technology. In times of crisis or emergencies, AI with ToM could offer valuable support. Whether deployed for crisis intervention or mental health assistance, these systems contribute to a holistic approach to well-being, providing empathetic support and understanding during challenging situations. Moreover, the integration of ToM could contribute to reducing bias in decision-making processes. By fostering a better understanding of diverse perspectives and beliefs, AI systems may contribute to fair and equitable outcomes in areas such as hiring, lending, and criminal justice, addressing concerns related to algorithmic bias. In industry perspective, AI with ToM can revolutionize human-robot collaboration, leading to improved efficiency, safety, and adaptability. The seamless interaction between human workers and AI systems equipped with ToM capabilities can redefine the dynamics of manufacturing and other industries. Finally, the potential benefits extend to innovations in human-computer interfaces. By enabling more intuitive and natural interactions, AI with ToM could break down barriers for individuals with disabilities, opening new possibilities for accessible and inclusive technology. While the future scopes of AI with ToM are vast, but ethical limitations, privacy concerns, and responsible AI governance have to be kept in mind during the development and deployment of these technologies. Thus, careful and thoughtful approach is essential to harness the benefits of AI with ToM for the greater good of society, ensuring a future where human-machine collaboration is characterized by empathy, efficiency, and ethical.

Machine Learning Integration with Tableau :
Ms.Neema Jha

As organizations progressively count on data-driven decision-making, merging of machine learning (ML) with business intelligence tools becomes of vital importance. This paper intends to explores the unification of Tableau, a leading data visualization platform, with machine learning potential. This paper proposes the investigation of native ML functionalities provided by Tableau, including supported algorithms, real-time predictive analytics, and model deployment. The user experience in integrating machine learning with Tableau is a critical aspect that significantly influences the effectiveness of the integrated toolset. The paper intends to explore the end-to-end ML process, assessing how Tableau supports tasks such as feature engineering, model training, and model evaluation. This paper also intends to check the interpretability of ML models in Tableau, investigating how users can gain insights into model predictions and understand the factors influencing outcomes. Addressing scalability and performance considerations will evaluate Tableau's efficiency in handling large datasets and computationally intensive ML tasks. Security and privacy aspects need to be explored to ensure the protection of sensitive information within the integrated ML models. Real-world use cases and industry applications exploration provides a thorough understanding of the impact of ML integration in Tableau on decision-making processes across diverse domains. Through this exploration, we aim to contribute insights into the capabilities, challenges, and potential advancements in the seamless integration of machine learning with Tableau, eventually entrust organizations to derive profound insights from their data.

A Comparative Analysis of Anomaly Detection Algorithms in financial datasets: Isolation Forest versus Cluster-Based Isolation Forest :
Ms.Manpreet Kaur Bhatia

This study provides a comprehensive comparison analysis of anomaly detection methods with a focus on the evaluation of the effectiveness of two important algorithms: the isolated forest (IF) and the cluster-based isolation forest (CBIF) applied to financial data sets. The study focuses on the unique challenges posed by financial data and aims to identify anomalies accurately. The research investigates the limitations of IF, especially in the recognition of local anomalies, and examine the support extended towards CBIF as an improved solution. Experimental methods include selecting financial data sets, varying in size, dimension, and complexity. Using a set of evaluation indicators, IF and CBIF performance is rigorously evaluated and compared. Visualizations and in-depth analyses of anomaly distributions provide an understanding of the algorithms' capabilities for detecting global and local anomalies. The research intends to contribute towards the ongoing debate on anomaly detection in financial data by providing empirical evidence of the limitations of one of the algorithms and areas of progress made by the other.

Identification of Oncology Patients at Risk for intensive care with Prescription text :
MR.Nitish Patil

Clinical prescriptions are an imperative component of a health record. In this paper will evaluate how natural language processing can be used to know the risk of acute care use in oncology patients, once chemotherapy starts. NLP methods are helpful for oncology patient's care so can apply these methods to help patients. Risk prediction using structured health data is now standard, but predictions using free-text formats are complex. This paper explores the use of free-text notes for the prediction of acute care use in lieu of SHD. Deep Learning based classification models will be compared to manually engineered language features. This paper will check how language models can be used in clinical applications and underlines how risk bias is different for diverse patient groups, even using only free-text data, also will evaluate after applying different NLP models like transformer based and BERT based model so that it can show the accuracy of models prediction for getting better result.

Unlocking the Future: How AI and ML Reshape Our World :
Mr.Aishwary Shukla

In the ever-evolving realm of technology, Artificial Intelligence (AI) and Machine Learning (ML) stand as the architects of transformation, reshaping the contours of our world. As an Assistant Professor immersed in the captivating universe of Artificial Intelligence and Machine Learning, I, Aishwary Shukla am delighted to share insights into the profound impact AI and ML hold for our collective future.The pace of innovation in AI is nothing short of breathtaking, and it's essential for us to grasp its implications. With AI serving as the primary driver of emerging technologies such as big data, robotics, and the Internet of Things (IoT), its influence is palpable across industries. From my vantage point, having contributed to the convergence of education and technology, I witness the transformative power of AI firsthand. The evolution of AI, from its early milestones in the 1950s to today's sophisticated applications in e-commerce, education, lifestyle, robotics, and more, underscores its versatility and potential. Transportation, manufacturing, healthcare, education, media, and customer service are all being redefined by the infusion of AI. As educators and learners, understanding these changes becomes paramount, as AI in education, for example, tailors learning experiences to individual needs through machine learning, natural language processing, and facial recognition.However, the impact of AI extends beyond industry boundaries, seeping into the fabric of society itself. With continuous advancements in AI, it is also imposing potential challenges to employment, especially in routine and scripted tasks. As AI becomes a tool to amplify human creativity, it's crucial to recognize the need for continuous education and upskilling. The shift towards a more AI-centric future demands that we equip ourselves with the language of programming, with coding being the key to unlocking the doors of the future job market.In addressing concerns about job displacement, the perspective is both realistic and optimistic. While routine tasks may be automated, the essence of human creativity remains untouched by AI. The near future of AI unfolds in reinforcement learning and generative adversarial networks, promising groundbreaking advancements that will ripple through diverse fields. As we stand on the brink of this AI revolution, it's imperative to remember: AI is a tool, not a replacezment. Those who master its utilization will excel. The opportunity to scale new heights in your career lies in embracing AI, staying ahead of the curve, and witnessing your productivity soar.In conclusion, AI is a catalyst for progress. The future is here, and together, we have the chance to shape it. Seize the opportunity, embrace the power of AI and ML, and embark on a journey of discovery and innovation.

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