df['Description']

0- '2020 This year, MoogleLabs was an idea. The abundance of traditional IT companies in the market, and the will to stand out of the crowd, encouraged us to consider future technologies. From the initial stage, we envisioned an organization that would develop and incorporate new technologies as they arrived. During this period, we conceptualized establishing an Innovative and energetic environment that can produce quality outputs for our clients looking for consulting, technology, outsourcing, modernization, DevOps, Data Sciences, applied AI, cybersecurity, and next-generation digital services. Thus, we thought of MoogleLabs. 2021 Pioneered by the three tech-geeks with 15-25 years of experience in consulting, technology, outsourcing, modernization, DevOps, Data Sciences, applied AI, cybersecurity, and next-generation digital services, MoogleLabs processes started to take shape in the second year. In this stage, we created the overall plan for the organization, including the road map, a complete analysis of the market, and our complete pitch to the market. It was the time of the pandemic, which did hamper the process, but we stayed focused on creating the perfect plan for an exceptional launch. 2022 In 2022, we officially launched MoogleLabs as an organization and have already worked on several projects. We grew our team, created a discovery mindset to build a research unit, and grew together with our product offerings expansion. By mid-year, we tripled in size to really put some muscle behind expanding our features.'

1-'Some of the projects we have worked on include Employee Attrition Prediction Model, the Screen Damage detection model, and managed cloud infrastructure for a number of clients, allowing them a faster go-to-market time. We are now established as a unit with 45+ team members, currently in exploring mode, working on things not a lot of people do, and looking for collaborations as Partnerships for DevOps, Data Analytics, and Blockchain to add to our innovation ecosystem. Recently, we have added Web 3.0 migration and Metaverse services to our portfolio.'

2-"We don't settle for less! If our MoogleLabs team has the potential to bring out the real-time solution for the businesses, we provide them with much tranquility and ease at the workplace. We Think. We Care. We Deliver Alone we cannot change the world, but with certain things, we can craft the future and work for business outcomes. We believe in the success of our clients, the accomplishments of our team, and the value we provide for the industry. We follow transparency, compassion, and collaboration. Speaking Up We encourage our team to present their views freely and without any hesitation. Our right attitude fuels up the constructive approach towards our businesses. We have allowed every individual in our team to think and act like an owner. We strive to CREATE a difference. Being good to each other We are open, honest, and sincere not only towards our ideas but while building a team, clients, and communities. We support each other and stay good with each other. Make A Difference We work to touch the space beyond personal and client expectations. We believe in advancing in terms of growth and seek opportunities to get much involved with the team. We stay active and work hard and smart to pull the best to our team."

3-"Corporate Office 55 Village Centre Place Suite 307, Mississauga Ontario L4Z1V9, Canada 6398, 166 street, Surrey BC, V3S0W4, Canada Development Office I-24, 2nd Floor Sector 83, Alpha IT City, Mohali, 140306, India ' "

4-'Artificial Intelligence Machine Learning DevOps Blockchain Metaverse .'

5-'Blog About Us Contact Us Portfolio Events.'

6-'info@mooglelabs.com   live:mooglelabs Whats Up -https://api.whatsapp.com'

7-'Every one of our webinars is targeted at providing relevant information about specific technology and its benefits and applications for businesses. We regularly hold webinars on AI/ML. DevOps, Data Science, and Blockchain. Register for the latest one today.'

8-"Thursday, April 6 | 18 : 00 IST ML Recommendation System – Increase Your Revenue Multi-Fold with the right tools   Thursday, March 2 | 19 : 00 IST Infrastructure as Code (IaC)   Thursday, February 2 | 19 : 00 IST NFT Fundamentals   Thursday, January 12 | 19 : 00 IST CI/CD with Jenkins   Thursday, December 8 | 19 : 00 IST 'Quantum Computing' - Touching the basics!   Thursday, November 10 | 19 : 00 IST Decoding Metaverse and its Business Opportunities   Thursday, November 3 | 18 : 00 IST Basics and

Application of Tableau – Your Data can tell a Story. Thursday, October 6 | 18 : 00 IST Web 2.0 to Web 3.0 Thursday, September 22 | 18 : 00 IST DevOps: Age of CI/CD Thursday, September 8 | 18 : 00 IST How Blockchain is Driving Transparency Across the Supply Chain Thursday, August 4 | 18 : 00 IST Transformers – From Basics to Implementation Thursday, June 30 | 18 : 00 IST The Advantages and Business Values of DevOps "

9-'https://www.facebook.com/mooglelabs'

10-'https://www.instagram.com/mooglelabs/'

11-'+1(209) 201-0654'

12-'https://api.whatsapp.com'

13-'"Decoding Innovation" in AI/ML, Blockchain, DevOps, Data Science & Metaverse'

14-'Delivering Smart Outcomes with AI-Powered Solutions Intelligence in it`s Newer Forms at MoogleLabs Tackling business challenges today requires a modern set of capabilities. MoogleLabs AI solutions are structured with vast portfolio of AI services '

15-'We Accelerate your Quest for Intelligent Automation Evolutionary AI Discovering new behaviours and objects to deliver solutions. Conversational AI Enabling voice-based and interactive services. Causality AI Understanding impactful data for business, while going beyond corelation Deep Learning Infuse intelligence and human-like capabilities into business functions. AI Robotics that works Built on the universal AI, we create a roadmap and deploy AI robotics solutions across your operations. Fuzzy Logic Approach Implementation Ensure process stability improvements and throughput increase. Achieve Automation Artificial Intelligence solutions can help in achieving success in verticals such as such as email-based communications, accounting automation, AI prototyping & NLP.'

16-'Design intelligent systems for AI organisations Big Data Analytics Factor-based Analysis Marketing Mix Models Bayes Models Support Vector Machines Net Lift Modelling Supervised Principal Components Logistic Regression Time-Series Models Social Networking Models Random Forest Latent Class Cluster Analysis Cross-Sectional Models CART (Classification and Regression Trees)'

17-'Build Analytics and AI Infrastructures AI-ML based apps Virtual assistants along with voice interfaces Self-learning chatbot applications NLP Applications'

18-'Advanced AI Solutions for research based on Crowdsourcing & Human Computation Neuromorphic Computing Algorithmic game theory Computational social choice '

19-'10+ Years Experienced, Certified & Well-versed Tech-geeks 40% Time reduction Enablement in AI Solutions development Tech Proficiency in multiple Developer Platforms, Algorithm frameworks, Languages and Cloud. 73% Reduced Maintenance and Go-to-Market efforts with Niche Tech solutions Together let’s see where MoogleLabs Intelligence can take your Organization'

20-'Tackling business challenges today requires a modern set of capabilities. MoogleLabs AI solutions are structured with vast portfolio of AI services AI Strategy\n\nAI Technology Consulting AI Development & Engineering'

21-'Operationalizing AI Enable organizations for AI adoption to Achieve Automation Artificial Intelligence solutions can help in achieving success in verticals such as such as email-based communications, accounting automation, AI prototyping & NLP. Create Personalized Experiences With cluster programming and leveraging output responses, the E-commerce industry and CRM systems are already perceiving AI process deployments. Aim For Better Customer Satisfaction AI development services can be used to manage the influx of customer reviews effectively with AI chatbots.'

22-'Together let’s see where MoogleLabs Intelligence can take your Organization'

23-'Experts say the rise of artificial intelligence will make most people better off over the next decade, but many have concerns about how advances in AI will affect what it means to be human, to be productive and to exercise free will'

24-'62% believe artificial intelligence will have a major impact on jobholders overall in the next 20 years, but far fewer think it will greatly affect them personally. People are generally wary and uncertain of AI being used in hiring and assessing workers'

25-'Limited enthusiasm over AI’s growing influence in daily life'

26-'Experts are split about how much control people will retain over essential decision-making as digital systems and AI spread. They agree that powerful corporate and government authorities will expand the role of AI in people’s daily lives in useful ways. But many worry these systems will diminish individuals’ ability to control their choices'

27-'They have deep concerns about people’s and society’s overall well-being. But they also expect great benefits in health care, scientific advances and education'

28-'Reflecting the Past, Shaping the Future Making ML Models Reality '

29-'UPGRADE and Execute Organizational Workflows with ML Services 99% Improvement In Customer & Employee Experiences 2/3 Executives Trust AI To Boost Their Investment Post-Pandemic 75% Organizations Hire AI Specialists For Branding And Reputation'

30-'We guarantee speed-to-value with break-through technologies and partnerships with MoogleLabs. Our ML Consulting offers seamless end-to-end framework in business, design and technology.'

31-'Entrepreneurs are pumped up to leverage the assistance of ML in order to take their business to the next level. At MoogleLabs, we assist you explore AI-powered transformation in your organization. Now is the time to unlock growth opportunities and create new revenue streams to yield maximum gain. Our unparalleled ML specialization assures little time-to-market, with profitable business impact. Natural Language Processing Deducting the overall manual efforts Extraction, Processing, and Analysis of Data Converting Structured Data to Meaningful Insights Unsupervised Machine Learning Experience Real-time Auto Translation by Voice or Text into various languages engineering Machine Learning Creating systems for accurate decisions Interpreting complex data Detecting trends and patterns Integrating and deploying ML Engines ChatBot Development Offer seamless customer support Scalable and secured applications Personalised communication Save time and operational costs Automated workflows and transactions AI support with Google AI (Dialogflow) IBM Watson, Microsoft AI, Amazon Lex, or Tensor flow (sense AI Proprietary, custom-built) for Inbox and also for bots (conversational) Robotic Process Automation Deducting the overall manual efforts Minimizing the risk of human errors Increasing the productivity of day-to-day activities '

32-'The development experts work with refined algorithms to support quick as well as effective decision making. Our ML development experts use sophisticated ML algorithms to support quick and effective decision making. Our unique and scalable solutions can be easily integrated with existing processes and systems to maximize business development. Our ML development experts use sophisticated ML algorithms to support quick and effective decision making. Our unique and scalable solutions can be easily integrated with existing processes and systems to maximize business development. Customer Engagement Assured revenue growth, reduced OpEx and increased Customer lifestyle. Marketing Ensure spectacular customer experiences that boost marketing efficiencies. B2B Growth Fuel sales by targeting, converting, and growing the quality leads. Pricing Unlock margin with precision by optimizing price, pack, and promotion. Talent Speed up employee productivity and efficiency while enhancing workforce culture. Processing 3x to 10x improved productivity for workforce transformation for critical business processes.'

33-'Every entrepreneur wants to stay on top of the market in their business domains. MoogleLabs is the best machine learning consultancy enterprise, offering end-to-end ML, Data Science and Data Learning solutions for a wide range of industries and verticals. Our ML capabilities include predicting, monitoring, managing traffic while automating tasks with Artificial Intelligence and Machine Learning solutions. Retail Smart Analytics and NLP are bringing great transformation in the retail stores, to empower their customers and store-owners . We have come up with fascinating features like virtual trial rooms, digital racks, consumer behavior analytics with the support of digital assistance. Banking and Finance Banks and other financial institutions are upgrading and digitalizing the processes, by automating their workforce and making the processes

intelligent and automated. The vigorous processes are secure enough to keep cyber risks at bay, and have a competitive advantage. Our Machine Learning abilities drive operational and cost efficiencies. Healthcare With people being more concerned about health these days, it is vivacious to redirect intelligent healthcare features and services. Our patient support, monitoring and management are advanced ML solutions helping professionals in the early-stage diagnosis of diseases, especially with expansion of consumer wearables. MoogleLabs ML Services offer great potential benefits to support and digitalize the healthcare sector. Real Estalte Advanced AI solutions support the Real Estate industry by streamlining tasks and allowing quick decision-making for builders and promoters. ML Developers at MoogleLabs are skilled to deliver intelligent asset management like property valuation, management, facility management simplified collaboration, supply chain management, peer-to-peer transactions, ERP management, resource management, and much more. HR-Workforce Eradicating redundant or recurring activities can result in increased productivity of the HR department. AI tools help in yielding short-term and long-term benefits, by predicting outcomes, and curbing talent attrition. Automating employee query resolution, facilitating real-time ticketing of employees, streamlining HR workflows, intelligent employee engagement analytics, etc. are some of the amazing features HR and organizations are taking benefit of. Travel & Tourism The travel and tourism industry is enjoying the enormous benefits with the great advancements of data science and ML technologies. Airlines and hotels are leveraging the benefits of AI and ML by predicting travel choices, personalizing services, getting complete bookings, and managing in-trip and post-trip requirements. Sentiment analysis in social media, recommendation engine, intelligent travel assistants, optimized disruption management, etc. are some of the ongoing trends in the travel and tourism domain.'

34-'The Ultimate Application of AI and machine learning in manufacturing and predictive maintenance. Overview The system coupled automated Time Series Analysis with Data Dashboards to leverage Predictive Maintenance algorithms coupled with Human Oversight for its production line. Client A large heavy equipment manufacturer had deployed IoT-based sensors on key equipment deployed on the production line. The sensor data was manually analyzed to detect and provide early warning of equipment failure. Business Requirement A need was felt to automate the analysis of the large volume and type of data captured via the various sensors such that automated alerts could be generated. Preferable Outcome If the analysis detects warning signals, Data should also be displayed on intuitive dashboards. It will allow employees to monitor the equipment in real time. Predictive Maintenance Machine Learning Based Analysis Of Historical Sensor Data Can Detect The Need For Preventive Maintenance Before The Same May Be Evident To Human Operators. Thereby Allowing One To Proactively Schedule Maintenance To Prevent Costly Outages. The Resultant Avoidance Of Last-Minute Repairs And Part Replacements Goes A Long Way Towards Achieving Maximum Operational Efficiencies On The Production Line. Anomaly Detection Sensor data analysis is a key process for the detection of anomalous readings. Hence, it is a key indicator of abnormal operating conditions of the equipment under review. The source of the abnormalities could be environments or inherent in the equipment itself – either way, such anomalous operating conditions are often the precursors of equipment failures. Therefore, early detection and suitable escalation to human operators for investigation are critical to smooth operations. Sensor Data Collection With the proliferation of IoT-based sensors, it may seem that we have achieved the nirvana stage. And that all data will automatically become available for analysis and display. However, a lot of pre-processing and data cleansing activities need to be carried out, at scale, in order to unlock this potential value. The presence of a wide variety of sensors and data collection mechanisms makes this doubly complicated. An experienced partner like us can help deploy the data collection, cleansing, and storage mechanisms that form the base for further machine learning in predictive maintenance and analytics. Our Solution We deployed the following technology to create an effective predictive maintenance alert through machine learning and IoT: Feature Extractor for Time Series Developed a feature extractor for the time series data on Current, Temperature, and Vibration readings from various sensors using Python packages (NumPy, Pandas). Deployment The resultant model was deployed to the customer’s on-premises infrastructure and the generated alerts, and dashboard graphs were pushed to a React-frontend website, deployed on the cloud. Rules Engine Deployed a rules engine based on time series analysis to automatically detect problematic events of interest and to generate alerts based on the detected events. The alerts were automatically sent as mobile app notifications and as emails'

35-'Exploratory data analysis, Data preparation, Model training & tuning, Data drift Drag and drop ML'

36-'Machine learning is a branch of artificial intelligence (AI) and computer science which focuses on the use of data and algorithms to imitate the way that humans learn, gradually improving its accuracy.'

37-'A Decision Process: In general, machine learning algorithms are used to make a prediction or classification. Based on some input data, which can be labeled or unlabeled, your algorithm will produce an estimate about a pattern in the data. An Error Function: An error function evaluates the prediction of the model. If there are known examples, an error function can make a comparison to assess the accuracy of the model. A Model Optimization Process: If the model can fit better to the data points in the training set, then weights are adjusted to reduce the discrepancy between the known example and the model estimate. The algorithm will repeat this "evaluate and optimize" process, updating weights autonomously until a threshold of accuracy has been met. '

38-'Machine learning models fall into three primary categories. Supervised machine learning Supervised learning, also known as supervised machine learning, is defined by its use of labeled datasets to train algorithms to classify data or predict outcomes accurately. As input data is fed into the model, the model adjusts its weights until it has been fitted appropriately. This occurs as part of the cross validation process to ensure that the model avoids overfitting or underfitting. Supervised learning helps organizations solve a variety of real-world problems at scale, such as classifying spam in a separate folder from your inbox. Some methods used in supervised learning include neural networks, naïve bayes, linear regression, logistic regression, random forest, and support vector machine (SVM). Unsupervised machine learning Unsupervised learning, also known as unsupervised machine learning, uses machine learning algorithms to analyze and cluster unlabeled datasets. These algorithms discover hidden patterns or data groupings without the need for human intervention. This method's ability to discover similarities and differences in information make it ideal for exploratory data analysis, cross-selling strategies, customer segmentation, and image and pattern recognition. It's also used to reduce the number of features in a model through the process of dimensionality reduction. Principal component analysis (PCA) and singular value decomposition (SVD) are two common approaches for this. Other algorithms used in unsupervised learning include neural networks, k-means clustering, and probabilistic clustering methods. Semi-supervised learning Semi-supervised learning offers a happy medium between supervised and unsupervised learning. During training, it uses a smaller labeled data set to guide classification and feature extraction from a larger, unlabeled data set. Semi-supervised learning can solve the problem of not having enough labeled data for a supervised learning algorithm. It also helps if it's too costly to label enough data. Reinforcement machine learning Reinforcement machine learning is a machine learning model that is similar to supervised learning, but the algorithm isn't trained using sample data. This model learns as it goes by using trial and error. A sequence of successful outcomes will be reinforced to develop the best recommendation or policy for a given problem. The IBM Watson® system that won the Jeopardy! challenge in 2011 is a good example. The system used reinforcement learning to learn when to attempt an answer (or question, as it were), which square to select on the board, and how much to wager—especially on daily doubles. '

39-'A number of machine learning algorithms are commonly used. These include: Neural networks: Neural networks simulate the way the human brain works, with a huge number of linked processing nodes. Neural networks are good at recognizing patterns and play an important role in applications including natural language translation, image recognition, speech recognition, and image creation. Linear regression: This algorithm is used to predict numerical values, based on a linear relationship between different values. For example, the technique could be used to predict house prices based on historical data for the area. Logistic regression: This supervised learning algorithm makes predictions for categorical response variables, such as"yes/no" answers to questions. It can be used for applications such as classifying spam and quality control on a production line. Clustering: Using unsupervised learning, clustering algorithms can identify patterns in data so that it can be grouped. Computers can help data scientists by identifying differences between data items that humans have overlooked. Decision trees: Decision trees can be used for both predicting numerical values (regression) and classifying data into categories. Decision trees use a branching sequence of linked decisions that can be represented with a tree diagram. One of the advantages of decision trees is that they are easy to validate and audit, unlike the black box of the neural network. Random forests: In a random forest, the machine learning algorithm predicts a value or category by

combining the results from a number of decision trees.'

40-'As machine learning technology has developed, it has certainly made our lives easier. However, implementing machine learning in businesses has also raised a number of ethical concerns about AI technologies. Some of these include: Technological singularity While this topic garners a lot of public attention, many researchers are not concerned with the idea of AI surpassing human intelligence in the near future. Technological singularity is also referred to as strong AI or superintelligence. Philosopher Nick Bostrum defines superintelligence as “any intellect that vastly outperforms the best human brains in practically every field, including scientific creativity, general wisdom, and social skills.” Despite the fact that superintelligence is not imminent in society, the idea of it raises some interesting questions as we consider the use of autonomous systems, like self-driving cars. It’s unrealistic to think that a driverless car would never have an accident, but who is responsible and liable under those circumstances? Should we still develop autonomous vehicles, or do we limit this technology to semi-autonomous vehicles which help people drive safely? The jury is still out on this, but these are the types of ethical debates that are occurring as new, innovative AI technology develops. AI impact on jobs While a lot of public perception of artificial intelligence centers around job losses, this concern should probably be reframed. With every disruptive, new technology, we see that the market demand for specific job roles shifts. For example, when we look at the automotive industry, many manufacturers, like GM, are shifting to focus on electric vehicle production to align with green initiatives. The energy industry isn’t going away, but the source of energy is shifting from a fuel economy to an electric one. In a similar way, artificial intelligence will shift the demand for jobs to other areas. There will need to be individuals to help manage AI systems. There will still need to be people to address more complex problems within the industries that are most likely to be affected by job demand shifts, such as customer service. The biggest challenge with artificial intelligence and its effect on the job market will be helping people to transition to new roles that are in demand. Privacy Privacy tends to be discussed in the context of data privacy, data protection, and data security. These concerns have allowed policymakers to make more strides in recent years. For example, in 2016, GDPR legislation was created to protect the personal data of people in the European Union and European Economic Area, giving individuals more control of their data. In the United States, individual states are developing policies, such as the California Consumer Privacy Act (CCPA), which was introduced in 2018 and requires businesses to inform consumers about the collection of their data. Legislation such as this has forced companies to rethink how they store and use personally identifiable information (PII). As a result, investments in security have become an increasing priority for businesses as they seek to eliminate any vulnerabilities and opportunities for surveillance, hacking, and cyberattacks. Bias and discrimination Instances of bias and discrimination across a number of machine learning systems have raised many ethical questions regarding the use of artificial intelligence. How can we safeguard against bias and discrimination when the training data itself may be generated by biased human processes? While companies typically have good intentions for their automation efforts, Reuters (link resides outside IBM)) highlights some of the unforeseen consequences of incorporating AI into hiring practices. In their effort to automate and simplify a process, Amazon unintentionally discriminated against job candidates by gender for technical roles, and the company ultimately had to scrap the project. Harvard Business Review (link resides outside IBM) has raised other pointed questions about the use of AI in hiring practices, such as what data you should be able to use when evaluating a candidate for a role. Accountability Since there isn’t significant legislation to regulate AI practices, there is no real enforcement mechanism to ensure that ethical AI is practiced. The current incentives for companies to be ethical are the negative repercussions of an unethical AI system on the bottom line. To fill the gap, ethical frameworks have emerged as part of a collaboration between ethicists and researchers to govern the construction and distribution of AI models within society. However, at the moment, these only serve to guide. Some research (link resides outside IBM) (PDF, 1 MB) shows that the combination of distributed responsibility and a lack of foresight into potential consequences aren’t conducive to preventing harm to society.'

41-'Machine learning is data driven technology. Large amount of data generated by organizations on daily bases. So, by notable relationships in data, organizations makes better decisions. Machine can learn itself from past data and automatically improve. From the given dataset it detects various patterns on data. For the big organizations branding is important and it will become more easy to target relatable customer base. It is similar to data mining because it is also deals with the huge amount of data.'

42-'AI-Powered Intelligent DevOps Consulting Services To bring agility & consistency to your business DevOps is more than just technology in organizations, it’s a Culture! MoogleLabs DevOps solutions turbocharges velocity with continuous quality for CI/CD architectures. This helps constantly automate, monitor and optimize workflows. AI adoption drives prioritization and running tests as per the current pipeline, thus reducing time from each cycle. Having optimized feedback accelerates innovation, improves quality and enhances the overall experience. '

43-'We assure continuous delivery pipelines for developing Microservices and Cloud-Native Applications on Knative and Kubernetes AWS We enable DevOps Solutions on AWS with the use of AWS CodeBuild, AWS CodePipeline, AWS OpsWorks and AWS CodeStar Azure We enable DevOps Solutions on Azure with the use of Azure Pipeline, Azure Artifacts, Azure Repos and Azure Board. Google Cloud We help manage GCP Application with DevOps with the use of Google Datastore, Google Compute Engine, Google Cloud CDN and Google Container Engine.'

44-'ANSIBLE PUPPET SALTSTACK CHEF DOCKER VAGRANT SELENIUM J UNIT MOCKITO J METER TESTING CUCUMBER SOURCE CONTROL GIT JIRA SOFTWARE MAVEN NAGIOS JENKINS SPLUNK '

45-'Whether you’ve just started your cloud journey, or you’re planning for advanced automation with bleeding edge technologies, now is the time to speak to our DevOps consulting experts. Our approach to DevOps services and solutions is designed to accommodate all sized businesses, no matter where you are in your automation journey!'

46-'DevOps for Legacy DevSecOps DevOps for Packages Cloud DevOps'

47-'Legacy Enterprise COE Set Up Package Package   People & Process Transformation Digital Transformation   Service/ Platform Setup   Cloud DevOps'

49-'Get Started with Automation Strategy We Help You Every Step Of The Way Technology Selection Our DevOps services experts help you select the cloud and automation you need to win in the market. Introduce Operational Visibility The DevOps transformation become reality with automated monitoring & reporting solutions. Continuous Transformation MoogleLabs is your integrated technology partner to help you stay ahead of your competition and ace future transformations. Development & Testing With the existing processes design and workloads, we integrate advanced DevOps solutions and cloud tools seamlessly. Operations Management Being an extension of your team, our DevOps service providers assist in improving productivity, security, delivery and help manage youR automated operations.'

50-'DevOps is a set of practices, tools, and a cultural philosophy that automate and integrate the processes between software development and IT teams. It emphasizes team empowerment, cross-team communication and collaboration, and technology automation. The DevOps movement began around 2007 when the software development and IT operations communities raised concerns about the traditional software development model, where developers who wrote code worked apart from operations who deployed and supported the code. The term DevOps, a combination of the words development and operations, reflects the process of integrating these disciplines into one, continuous process.'

51-'A DevOps team includes developers and IT operations working collaboratively throughout the product lifecycle, in order to increase the speed and quality of software deployment. It’s a new way of working, a cultural shift, that has significant implications for teams and the organizations they work for. Under a DevOps model, development and operations teams are no longer “siloed.” Sometimes, these two teams merge into a single team where the engineers work across the entire application lifecycle — from development and test to deployment and operations — and have a range of multidisciplinary skills. DevOps teams use tools to automate and accelerate processes, which helps to increase reliability. A DevOps toolchain helps teams tackle important DevOps fundamentals including continuous integration, continuous delivery, automation, and collaboration. DevOps values are sometimes applied to teams other than development. When security teams adopt a DevOps approach, security is an active and integrated part of the development process. This is called DevSecOps.'

52-'The DevOps lifecycle consists of eight phases representing the processes, capabilities, and tools needed for development (on the left side of the loop) and

operations (on the right side of the loop). Throughout each phase, teams collaborate and communicate to maintain alignment, velocity, and quality.Learn more about communication and collaboration magnifying glass icon Building software is a team sport. In preparation for the upcoming sprint, teams must workshop to explore, organize, and prioritize ideas. Ideas must align to strategic goals and deliver customer impact. Agile can help guide DevOps teams.Learn more about product discovery.DevOps teams should adopt agile practices to improve speed and quality. Agile is an iterative approach to project management and software development that helps teams break work into smaller pieces to deliver incremental value.Learn more about agile\nGit is a free and open source version control system. It offers excellent support for branching, merging, and rewriting repository history, which has led to many innovative and powerful workflows and tools for the development build process.Learn more about git Continuous integration (CI) allows multiple developers to contribute to a single shared repository. When code changes are merged, automated tests are run to ensure correctness before integration. Merging and testing code often help development teams gain reassurance in the quality and predictability of code once deployed.Learn more about CI Continuous deployment (CD) allows teams to release features frequently into production in an automated fashion. Teams also have the option to deploy with feature flags, delivering new code to users steadily and methodically rather than all at once. This approach improves velocity, productivity, and sustainability of software development teams.\n\nLearn more about CD\nManage the end-to-end delivery of IT services to customers. This includes the practices involved in design, implementation, configuration, deployment, and maintenance of all IT infrastructure that supports an organization’s services. Learn more about operations Quickly identify and resolve issues that impact product uptime, speed, and functionality. Automatically notify your team of changes, high-risk actions, or failures, so you can keep services on. Learn more about monitoring\nDevOps teams should evaluate each release and generate reports to improve future releases. By gathering continuous feedback, teams can improve their processes and incorporate customer feedback to improve the next release.'

53-'What are the benefits of DevOps? In Atlassian’s 2020 DevOps Trends survey, 99 percent of respondents said that DevOps had a positive impact on their organization. The benefits of DevOps include faster and easier releases, team efficiency, increased security, higher quality products, and consequently happier teams and customers. Speed Teams that practice DevOps release deliverables more frequently, with higher quality and stability. In fact, the DORA 2019 State of DevOps report found that elite teams deploy 208 times more frequently and 106 times faster than low-performing teams. Continuous delivery allows teams to build, test, and deliver software with automated tools. Improved collaboration The foundation of DevOps is a culture of collaboration between developers and operations teams, who share responsibilities and combine work. This makes teams more efficient and saves time related to work handoffs and creating code that is designed for the environment where it runs. Rapid deployment By increasing the frequency and velocity of releases, DevOps teams improve products rapidly. A competitive advantage can be gained by quickly releasing new features and repairing bugs. Quality and reliability Practices like continuous integration and continuous delivery ensure changes are functional and safe, which improves the quality of a software product. Monitoring helps teams keep informed of performance in real-time. Security By integrating security into a continuous integration, continuous delivery, and continuous deployment pipeline, DevSecOps is an active, integrated part of the development process. Security is built into the product by integrating active security audits and security testing into agile development and DevOps workflows.'

54-"Habits are hard to break. Teams entrenched in siloed ways of working can struggle with, or even be resistant to, overhauling team structures to embrace DevOps practices. Some teams may mistakenly believe new tools are sufficient to adopt DevOps. Yet, DevOps is a combination of people, tools, and culture. Everyone on a DevOps team must understand the entire value stream – from ideation, to development, to the end user experience. It requires breaking down silos in order to collaborate throughout the product lifecycle. Devops isn't any single person's job. It's everyone's job."

55-'Adopting DevOps first requires a commitment to evaluating and possibly changing or removing any teams, tools, or processes your organization currently uses. It means building the necessary infrastructure to give teams the autonomy to build, deploy, and manage their products without having to rely too heavily on external teams. DevOps culture A DevOps culture is where teams embrace new ways of working that involve greater collaboration and communication. It’s an alignment of people, processes, and tools toward

a more unified customer focus. Multidisciplinary teams take accountability for the entire lifecycle of a product. Continuous learning Organizations that do DevOps well are places where experimentation and some amount of risk-taking are encouraged. Where thinking outside the box is the norm, and failure is understood to be a natural part of learning and improving. Agile Agile methodologies are immensely popular in the software industry since they empower teams to be inherently flexible, well-organized, and capable of responding to change. DevOps is a cultural shift that fosters collaboration between those who build and maintain software. When used together, agile and DevOps result in high efficiency and reliability.'

56-'Being an extension of your team, our DevOps service providers assist in improving productivity, security, delivery and help manage your automated operations.'

57-'Companies rely on the insights drawn out of data for formulating strategies and decision-making at different levels. More data more outcome? Not every time and not by everyone, to draw meaningful insights out of raw data is arduous. Data visualization is the key to unlock the stories that data hides. Data visualization is an action taken to translate the large data sets and metrics into charts, graphs and other visuals. The visual representation of data makes it convenient to draw to useful insights, discover and share the real-time trends about the information provided in the data. The process of visualization is not restricted to presenting the data in pictorial or graphical form but a way to interact with it and look how it’s processed.'

58-'Quick data Interpretation Data visualization depicts a clear picture allowing users to conclude meaningful observations of large data sets with charts, tables, graphs, maps, etc. Self Service Reporting Required information and necessary insights can be drawn out of data by the end-users without consulting the IT departments in the particular organisation in decision making. The users enjoy to be self-subsistent. Speeds up the Action Data visualisation helps the user to draw attention on required areas along with defining the fields in a certain pattern. It is beneficial in elimination of unnecessary tasks to focus on the relevant in order to implement essential changes. Advanced Tool We assure that when your data reaches the high-level executives, your dashboards help answer every possible critical business question. Now is the time to rethink your approach and prompt data users to take action, in no time.'

59-'Data Exploration Using interactive dashboards and point-and-click data exploration, users can better understand the bigger picture and get to insights faster Finance Identifies the factors of turnover and opportunities of cost-reduction, increased promotions. Emerging Trends Discovers the emerging trends and patterns that depicts both the explanation as well as the remedy. Audience Demographics Address the target audience in a powerful way to get fruitful results.'

60-'Let’s transfigure massive and critical data into Fruitful Solutions with MoogleLabs Data mining and visualization consumes numerous hours, resulting in unproductivity in the core areas which can have adverse effects in the long run, MoogleLabs is complemented with the team specializing in data cleansing, blending, quickly and spontaneously catch the important data. . We help in generating solutions that allow companies to create a 360-degree view of their business along with finding patterns, trends, and correlations. All of this helps the business owner to improve their decision-making powers irrespective of what industry you’re in.'

61-'Business-specific reports Reports will be formed as per the business users related to their roles. We customize and form the relevant reports and dashboards for particular users and roles. Unruffled data refining Looking into data from multiple viewpoints, your advertising ROI can be broken down for a quarter of the channel to identify underperforming factors. Easy interpretation of complex data Visualisation tools depict the data in clear way allowing users to understand and develop plans out of it. Comparatively less interaction with rows and columns The advanced data visualisation tools enable the users to visualize real-time data in different formats and unlock the value of data.'

62-'Data analytics is the science of analyzing raw data to make conclusions about that information. Many of the techniques and processes of data analytics have been automated into mechanical processes and algorithms that work over raw data for human consumption. KEY TAKEAWAYS Data analytics is the science of analyzing raw data to make conclusions about that information. Data analytics help a business optimize its performance, perform

more efficiently, maximize profit, or make more strategically-guided decisions. The techniques and processes of data analytics have been automated into mechanical processes and algorithms that work over raw data for human consumption. Various approaches to data analytics include looking at what happened (descriptive analytics), why something happened (diagnostic analytics), what is going to happen (predictive analytics), or what should be done next (prescriptive analytics).Data analytics relies on a variety of software tools ranging from spreadsheets, data visualization, and reporting tools, data mining programs, or open-source languages for the greatest data manipulation.'

63-'Data analytics is a broad term that encompasses many diverse types of data analysis. Any type of information can be subjected to data analytics techniques to get insight that can be used to improve things. Data analytics techniques can reveal trends and metrics that would otherwise be lost in the mass of information. This information can then be used to optimize processes to increase the overall efficiency of a business or system. For example, manufacturing companies often record the runtime, downtime, and work queue for various machines and then analyze the data to better plan the workloads so the machines operate closer to peak capacity. Data analytics can do much more than point out bottlenecks in production. Gaming companies use data analytics to set reward schedules for players that keep the majority of players active in the game. Content companies use many of the same data analytics to keep you clicking, watching, or re-organizing content to get another view or another click.'

64-'The process involved in data analysis involves several different steps: The first step is to determine the data requirements or how the data is grouped. Data may be separated by age, demographic, income, or gender. Data values may be numerical or be divided by category. The second step in data analytics is the process of collecting it. This can be done through a variety of sources such as computers, online sources, cameras, environmental sources, or through personnel. Once the data is collected, it must be organized so it can be analyzed. This may take place on a spreadsheet or other form of software that can take statistical data. The data is then cleaned up before analysis. This means it is scrubbed and checked to ensure there is no duplication or error, and that it is not incomplete. This step helps correct any errors before it goes on to a data analyst to be analyzed.'

65-'Data analytics is broken down into four basic types. Descriptive analytics: This describes what has happened over a given period of time. Have the number of views gone up? Are sales stronger this month than last? Diagnostic analytics: This focuses more on why something happened. This involves more diverse data inputs and a bit of hypothesizing. Did the weather affect beer sales? Did that latest marketing campaign impact sales? Predictive analytics: This moves to what is likely going to happen in the near term. What happened to sales the last time we had a hot summer? How many weather models predict a hot summer this year? Prescriptive analytics: This suggests a course of action. If the likelihood of a hot summer is measured as an average of these five weather models is above 58%, we should add an evening shift to the brewery and rent an additional tank to increase output.'

66-'There are several different analytical methods and techniques data analysts can use to process data and extract information. Some of the most popular methods are listed below. Regression analysis entails analyzing the relationship between dependent variables to determine how a change in one may affect the change in another. Factor analysis entails taking a large data set and shrinking it to a smaller data set. The goal of this maneuver is to attempt to discover hidden trends that would otherwise have been more difficult to see. Cohort analysis is the process of breaking a data set into groups of similar data, often broken into a customer demographic. This allows data analysts and other users of data analytics to further dive into the numbers relating to a specific subset of data. Monte Carlo simulations model the probability of different outcomes happening. Often used for risk mitigation and loss prevention, these simulations incorporate multiple values and variables and often have greater forecasting capabilities than other data analytics approaches. Time series analysis tracks data over time and solidifies the relationship between the value of a data point and the occurrence of the data point. This data analysis technique is usually used to spot cyclical trends or to project financial forecasts.'

67-'In addition to a broad range of mathematical and statistical approaches to crunching numbers, data analytics has rapidly evolved in technological capabilities. Today, data analysts have a broad range of software tools to help acquire data, store information,

process data, and report findings. Data analytics has always had loose ties to spreadsheets and Microsoft Excel. Now, data analysts also often interact with raw programming languages to transform and manipulate databases. Open-source languages such as Python are often utilized. More specific tools for data analytics like R can be used for statistical analysis or graphical modeling. Data analysts also have help when reporting or communicating findings. Both Tableau and Power BI are data visualization and analysis tools to compile information, perform data analytics, and distribute results via dashboards and reports. Other tools are also emerging to assist data analysts. SAS is an analytics platform that can assist with data mining, while Apache Spark is an open-source platform useful for processing large sets of data. Data analysts now have a broad range of technological capabilities to further enhance the value they deliver to their company.'

68-'Data analytics is important because it helps businesses optimize their performances. Implementing it into the business model means companies can help reduce costs by identifying more efficient ways of doing business. A company can also use data analytics to make better business decisions and help analyze customer trends and satisfaction, which can lead to new—and better—products and services. '

69-"Data analytics has been adopted by several sectors, such as the travel and hospitality industry, where turnarounds can be quick. This industry can collect customer data and figure out where the problems, if any, lie and how to fix them. Healthcare is another sector that combines the use of high volumes of structured and unstructured data and data analytics can help in making quick decisions. Similarly, the retail industry uses copious amounts of data to meet the ever-changing demands of shoppers. The Bottom Line In a world increasingly becoming reliant on information and gathering statistics, data analytics helps individuals and organizations make sure of their data. Using a variety of tools and techniques, a set of raw numbers can be transformed into informative, educational insights that drive decision-making and thoughtful management. SPONSORED Trade on the Go. Anywhere, Anytime One of the world's largest crypto-asset exchanges is ready for you. Enjoy competitive fees and dedicated customer support while trading securely. You'll also have access to Binance tools that make it easier than ever to view your trade history, manage auto-investments, view price charts, and make conversions with zero fees. Make an account for free and join millions of traders and investors on the global crypto market."

70-'Enterprise-Grade Blockchain Solutions Our expertise, end-to-end delivery, and strong ecosystem will accelerate blockchain deployments at the enterprise level.'

71-'Financial Industry Enables the financial industry in collecting all the data in one place. Transactions can be done in seconds and reduce counterparty risks. Manufacturing Industry Allows suppliers to easily trace raw materials and final products till delivery stage. Healthcare Industry Blockchain in healthcare improves diagnosis speed, boosts clinical efficiency and accuracy. The data security feature of Blockchain can be well-utilized in the healthcare industry. Enterprises Industry Offers greater efficiency, improved privacy and auditability along with reduced intermediarie'

72-'Custom DApps Development (DApps) We help companies leverage blockchain technology to safeguard user privacy and protect the app from intrusions. Smart Contracts Development Automate your business workflows, processes and customer engagements with Ethereum and Hyperledger based smart contracts.. Crypto Token Development We help you create, manage and trade crypto-tokens and provide full transparency throughout the project. Crypto Exchange Development Get trustworthy custom cryptocurrency exchange service solutions developed with high-security standards. Crypto Exchange Development Get a demo of our white-label crypto exchange solutions and experience how we strengthen our customers’ crypto trading businesses ensuring security and flexibility. NFT Marketplace Development While ensuring intuitive and reliable outcomes, we deliver feature-rich NFT Marketplace and customize NFT for your integrated marketplace. Launch ICO, STO, IEO Explore our ICO, STO and IEO token launch solutions that help customers securely raise money for business ventures. '

73-'Let your ideas be implemented with the core technologies! With the most innovative and up-to-date tools, we bring the highest development standards on the table. HYPERLEDGER FABRIC ETHEREUM STELLER CORDA HASH GRAPH RIPPLE R3 QUORUM Eos.io TRON HYPERLEDGER SAWTOOTH HYPERLEDGER INDY'

74-'Blockchain Embark We create a portfolio of blockchain innovations and help you

understand how they can benefit your business. Blockchain Design We take care of designing robust blockchain solutions for you to help you stand out from the rest. Blockchain Scale We integrate partnerships, alliances, and leaders from every sphere of the blockchain ecosystem. '

75-'Blockchain is a shared, immutable ledger that facilitates the process of recording transactions and tracking assets in a business network. An asset can be tangible (a house, car, cash, land) or intangible (intellectual property, patents, copyrights, branding). Virtually anything of value can be tracked and traded on a blockchain network, reducing risk and cutting costs for all involved.'

76-'Business runs on information. The faster it’s received and the more accurate it is, the better. Blockchain is ideal for delivering that information because it provides immediate, shared and completely transparent information stored on an immutable ledger that can be accessed only by permissioned network members. A blockchain network can track orders, payments, accounts, production and much more. And because members share a single view of the truth, you can see all details of a transaction end to end, giving you greater confidence, as well as new efficiencies and opportunities.'

77-'Distributed ledger technology All network participants have access to the distributed ledger and its immutable record of transactions. With this shared ledger, transactions are recorded only once, eliminating the duplication of effort that’s typical of traditional business networks. Immutable records No participant can change or tamper with a transaction after it’s been recorded to the shared ledger. If a transaction record includes an error, a new transaction must be added to reverse the error, and both transactions are then visible. Smart contracts To speed transactions, a set of rules — called a smart contract — is stored on the blockchain and executed automatically. A smart contract can define conditions for corporate bond transfers, include terms for travel insurance to be paid and much more.'

78-'As each transaction occurs, it is recorded as a “block” of data Those transactions show the movement of an asset that can be tangible (a product) or intangible (intellectual). The data block can record the information of your choice: who, what, when, where, how much and even the condition — such as the temperature of a food shipment. Each block is connected to the ones before and after it These blocks form a chain of data as an asset moves from place to place or ownership changes hands. The blocks confirm the exact time and sequence of transactions, and the blocks link securely together to prevent any block from being altered or a block being inserted between two existing blocks. Transactions are blocked together in an irreversible chain: a blockchain Each additional block strengthens the verification of the previous block and hence the entire blockchain. This renders the blockchain tamper-evident, delivering the key strength of immutability. This removes the possibility of tampering by a malicious actor — and builds a ledger of transactions you and other network members can trust.'

79-'What needs to change: Operations often waste effort on duplicate record keeping and third-party validations. Record-keeping systems can be vulnerable to fraud and cyberattacks. Limited transparency can slow data verification. And with the arrival of IoT, transaction volumes have exploded. All of this slows business, drains the bottom line — and means we need a better way. Enter blockchain. Greater trust With blockchain, as a member of a members-only network, you can rest assured that you are receiving accurate and timely data, and that your confidential blockchain records will be shared only with network members to whom you have specifically granted access. Greater security Consensus on data accuracy is required from all network members, and all validated transactions are immutable because they are recorded permanently. No one, not even a system administrator, can delete a transaction. More efficiencies With a distributed ledger that is shared among members of a network, time-wasting record reconciliations are eliminated. And to speed transactions, a set of rules — called a smart contract — can be stored on the blockchain and executed automatically.'

80-'There are several ways to build a blockchain network. They can be public, private, permissioned or built by a consortium. Public blockchain networks A public blockchain is one that anyone can join and participate in, such as Bitcoin. Drawbacks might include substantial computational power required, little or no privacy for transactions, and weak security. These are important considerations for enterprise use cases of blockchain. Private blockchain networks A private blockchain network, similar to a public blockchain network, is a decentralized peer-to-peer network. However, one organization governs the

network, controlling who is allowed to participate, execute a consensus protocol and maintain the shared ledger. Depending on the use case, this can significantly boost trust and confidence between participants. A private blockchain can be run behind a corporate firewall and even be hosted on premises. Permissioned blockchain networks Businesses who set up a private blockchain will generally set up a permissioned blockchain network. It is important to note that public blockchain networks can also be permissioned. This places restrictions on who is allowed to participate in the network and in what transactions. Participants need to obtain an invitation or permission to join. Consortium blockchains Multiple organizations can share the responsibilities of maintaining a blockchain. These pre-selected organizations determine who may submit transactions or access the data. A consortium blockchain is ideal for business when all participants need to be permissioned and have a shared responsibility for the blockchain.'

81-'Blockchain security '

82-'IBM Blockchain solutions Technical innovators turn to the IBM Blockchain Platform, the leading Hyperledger Fabric platform, to build, operate, govern and grow blockchain solutions across any computing environment through Red Hat® OpenShift®. Learn about the IBM Blockchain Platform As the top-ranked blockchain services provider, IBM Blockchain Services has the expertise to help you build powerful solutions, based on the best technology. More than 1,600 blockchain experts use insights from 100+ live networks to help you build and grow. Learn about blockchain consulting Embracing an IBM Blockchain solution is the fastest way to blockchain success. IBM has convened networks that make onboarding easy as you join others in transforming the food supply, supply chains, trade finance, financial services, insurance, and media and advertising.'

83-'Blockchain Solutions Although blockchain is based on sophisticated math and is secure at its foundation with its decentralized approach, there are ways to fool the blockchain to gain advantage. Ensure you build security into your solution from the ground up, always storing your keys in a hardware-based solution to avoid those pitfalls and remain protected. Luna Network HSMs are designed to store the private keys used by blockchain members to sign all transactions in a FIPS 140-2 Level 3 dedicated cryptographic processor. Keys are stored throughout their lifecycle; ensuring cryptographic keys cannot be accessed, modified or used by unauthorized devices or people. Cryptographic keys kept in software are at risk of theft, compromising the entire blockchain ledger. ProtectServer HSMs, like the Luna Network HSMs, are designed to protect cryptographic keys against compromise while providing encryption, signing, and authentication services. Both Luna and Protect Server HSMs extend native HSM functionality by enabling the development and deployment of custom code within the secure confines of the FIPS 140-2 Level 3 validated Thales HSM as a part of the firmware. Functionality Modules (FMs) allow you to customize your Thales HSM’s functionality to suit the needs of your organization, including the implementation of Quantum algorithms. Luna Cloud HSM Services. In addition to our on-premises HSM solutions, Thales also offers a Luna Cloud HSM solution through Data Protection On Demand (DPoD). DPoD offers an as a service billing model with no hardware to deploy and maintain. SafeNet Authentication Service (SAS) will substantially reduce your total cost of operation and tailor authentication to meet your unique needs with this fully automated, highly secure authentication-as-a service with flexible token options.'

84-'HE FUTURE IS NOW metaverse Capitalize on the latest technology with us! Collaborate to create your own metaverse platform with our Metaverse Development Services.'

85-'Metaverse adoption rates have been significantly high, with predictions that 30% of the companies in the world will have products and services for Metaverse by 2026. Before jumping into Metaverse Development services, you must understand the scope of the technology. In essence, the Metaverse is the online world where people can create and live vicariously through their avatars. It is essentially the gamification of real life with real-life implications. You can buy goods and services, attend events, and even work online through Metaverse. Metaverse boon will change how people engage digitally. It is a multidimensional space that offers a more interactive experience than any social media application you have today. The Metaverse industry is already over a hundred billion, and it is expected to become a trillion-dollar industry in the future. Big corporations like Facebook, Nike, Microsoft, and others are working on getting a piece of this pie by being part of the pioneer group that offers ingenious offerings to their customers. Companies that want to sustain or improve their position in their industry must start thinking big and act on these instincts to innovate with Metaverse and scale quickly. '

86-'We have curated a tight-knit team of metaverse-skilled developers and designers who can create and expedite every client’s metaverse journey. We have already built sophisticated and visually interactive metaverse applications that use blockchain attributes like 100% transparency, user sovereignty, better privacy, and automation. As a leading metaverse development company, we can help you create 3D virtual spaces, metaverse apps, and metaverse NFT marketplaces on decentralized platforms. '

87-'Explore the Potential of Metaverse Across Industries Metaverse Application Development We develop metaverse applications using futuristic technologies like Blockchain, AI, ML, etc. Hire us to create AR and VR mobile applications. Metaverse NFT Marketplace Development Create your business’s NFT marketplace with custom avatars and much more using Metaverse solutions. Metaverse for Gaming Let us help you create a more immersive gaming experience for your users with Metaverse game development services. Metaverse for Real Estate Create virtual spaces for people to hang out or sell authentic real estate assets online, among several other applications. Metaverse Integration Services Build a top-notch metaverse platform with the latest features, functionalities, and an immersive 3D experience. Metaverse Social Media App Development Develop state-of-the-art social media applications on Metaverse to redefine people’s interactions online. '

88-'Avail Metaverse tokens solutions that Ensure Trust & Security Proof of Ownership Digital Collectability Transfer of Value Governance Accessibility Interoperability'

89-'Digital Currency Marketplace/Digital Commerce Gaming Digital Assets Entertainment & Social Events Online Shopping Device Independence Digital Humans Infrastructure Social Media Workplace Non-Fungible Token (NFTs)'

90-'Here are the various technologies we use in Metaverse Virtual Reality Artificial Intelligence Augmented Reality Machine Learning Blockchain Digital Currency Gaming Non-Fungible Token(NFTs) AR cloud Internet of Things(IoT) Spartial Technologies Head-Mounted Display 3D- Reconstructions '

91-'SOLIDTTY C# C++ JS HTML CUDA RUST LUA CSS SWIFT'

92-'We Make Your Metaverse Transition Smooth Technical Skills Our team comprises members with the technical skills to provide excellent metaverse solutions. R&D Labs Our R&D labs facilitate the research, creation, and validation of your metaverse ideas, ensuring an impactful product. Innovative Outcomes Our diverse team of experts provides innovative metaverse app development services to every client. Complete Support During and after the metaverse building process, we offer complete support for clients'

93-"Imagine a virtual world where billions of people live, work, shop, learn and interact with each other -- all from the comfort of their couches in the physical world. In this world, the computer screens we use today to connect to a worldwide web of information have become portals to a 3D virtual realm that's palpable -- like real life, only bigger and better. Digital facsimiles of ourselves, or avatars, move freely from one experience to another, taking our identities and our money with us. This is known as the metaverse and, hype notwithstanding, it does not exist today. What are enterprise leaders to make of a fast-evolving, hyped-up concept could fundamentally change how humans live? TechTarget's in-depth guide to the metaverse breaks down where this nascent technology revolution stands today and where it is headed. Topics include the technologies and platforms that support the metaverse, its benefits and challenges, how to invest in it, its history, why the metaverse is important and its impact on the future of work. Throughout the guide, there are hyperlinks to in-depth explorations of these and other relevant topics, as well as to definitions of important concepts in the metaverse such as interoperability, digital twins, spatial computing and Web 3.0."

94-'“Metaverse" became a household word when Facebook rebranded its corporate identity to Meta in October 2021 and announced plans to invest at least $10 billion in the concept that year. In addition to Meta, tech giants including Google, Microsoft, Nvidia and Qualcomm are also investing billions of dollars in the concept. Management consultancy McKinsey & Company has bullishly predicted that the metaverse economy could reach $5 trillion by 2030. E-commerce is expected to be the dominant engine, with gaming, entertainment, education and marketing in the metaverse also becoming important sectors. Today, companies use the term to refer to many different types of enhanced online environments. These range from online video games like Fortnite to fledgling virtual

workplaces like Microsoft\'s Mesh or Meta\'s Horizon Workrooms to virtual dressing rooms and virtual operating rooms. Rather than a single shared virtual space, the current version of the metaverse is shaping up as a multiverse: a multitude of metaverses with limited interoperability as companies jockey for position. The combination of uncritical enthusiasm for the metaverse and deep uncertainty about how it will pan out has sparked some backlash. Industry watchers have questioned if the metaverse will ultimately be much different from the digital experiences we have today -- or, if it is, whether the masses will be willing to spend hours a day in a headset navigating digital space. Other futurists, however, argue that while it is early days for the metaverse and fundamental technical barriers still exist, the metaverse will happen. And, it will arrive with a big bang. "It is clear that it is one of the most highly anticipated technology evolutions of the coming decade," Dave Wright, chief innovation officer at IT provider ServiceNow, told TechTarget writer George Lawton in "History of the metaverse explained."'

95-'Because the metaverse is largely unbuilt, there is little agreement on how it will work. Broadly speaking, however, the metaverse is a digital ecosystem built on various kinds of 3D technology, real-time collaboration software and blockchain-based decentralized finance tools. Factors such as the degree of interoperability among virtual worlds, data portability, governance and user interfaces will depend on how the metaverse pans out. Lauren Lubetsky, senior manager at Bain & Company, speaking in a session on the metaverse at the 2022 MIT Platform Strategy Summit, outlined three possible scenarios: The metaverse remains a domain of niche applications, used by consumers for entertainment and gaming but stopping well short of an all-encompassing virtual reality. The metaverse is controlled by large competing ecosystems -- for example, Apple and Android meta worlds -- with limited interoperability. The metaverse is a dynamic, open and interoperable space, much like the internet but in 3D.'

96-"Two technologies considered important to the development and growth of the metaverse are virtual reality and augmented reality: Virtual reality is a simulated 3D environment that enables users to interact with a virtual surrounding in a way that approximates reality as perceived through our senses. This approximation of reality is now typically accessed through a VR headset that takes over a user's field of vision. Haptics, including gloves, vests and even full-body tracking suits, enable more lifelike interaction with the virtual environment. Augmented reality is less immersive than VR. It adds digital overlays on top of the real world via a lens of some type. Users can still interact with their real-world environment. The game Pokémon Go is an early example of AR. Google Glass and heads-up displays in car windshields are well-known consumer AR products. Whether VR and AR experiences turn out to be the primary interfaces of the metaverse remains to be seen, Gartner senior principal analyst Tuong H. Nguyen told Lawton, adding that what we have now are precursors or pre-metaverse solutions. At present, many of the metaverse-like experiences offered by gaming platforms such as Roblox, Decentraland and Minecraft can be accessed through browsers or mobile devices and a fast internet connection."

97-'Metaverse technologies In her article "7 top technologies for metaverse development," technology writer Esther Shein explained that industry watchers shy away from codifying the technologies that will power the metaverse. This is in part because the metaverse is evolving and partly because many of the tools driving the metaverse are themselves made up of multiple technologies. Gartner, for example, prefers to describe metaverse technologies in terms of "tech themes." The themes include spatial computing, digital humans, shared experiences, gaming and tokenized assets. Forrester Research characterizes metaverse tools as "enablers of 3D development environments." Professionals skilled in 3D modeling and IoT for developing digital twins are among the talent companies will need to recruit for. The consensus among Shein\'s expert sources was that these seven technologies will have the biggest impact on metaverse development over the next decade: artificial intelligence internet of things extended reality brain-computer interfaces 3D modeling and reconstruction spatial and edge computing blockchain'

98-'Development Services Become among the first to provide Web 3.0 experience for your users. Collaborate with us to create Web 3.0 solutions that help your business stay ahead.'

99-"Web 3.0 is the next-gen Internet that will change people's online experience. Some components of Web 3.0 solutions include the use of Blockchain, Augmented Reality, Virtual Reality, Artificial Intelligence, Machine Learning, and several other new and improved technologies. These cutting-edge technologies are recent developments that the Internet

is utilizing to transform the user experience. With the new age of the Internet, the aim is to remove the gaps that exist between the physical and digital worlds. Web 3.0 is responsible for revolutionizing the Internet's architecture, using the latest technologies to achieve the goal. At MoogleLabs, we are working towards the contextualization of unparallel user experiences. Let us help turn your ideas into deployable solutions and create a futuristic feel for your brand. Companies that want to stay ahead in their industry, improve their position, or sustain the one they have, must start investing in Web 3.0 today."

100-'For more than two years, our team has offered IT solutions, and their expertise in the latest technology makes them an excellent partner to assist you on your journey into the realm of Web 3.0. We have already worked on several Web 3.0 applications that use a range of modern technologies to offer better transparency while assisting with automation. As a leading Web3 Development company, we can help you create Web3 solutions, like privacy and digital infrastructure, blockchain games, Metaverse, Decentralized Finances, and much more. '

101-'The Abundant Potential of Web 3.0 Across Industries Web 3.0 Platform Development We create a decentralized and token-based economy using blockchain technology through our expertise Web 3.0 Social Media Platform Post-to-earn and reward-enabled social media apps are the new creator’s economy you can build here. Web 3.0 Real Estate Platform Make your property accessible to all who want a look without going anywhere using Web3 Development Solutions. Web 3.0 Store Development Give your users the option to test the product online and reset your brand image with Web 3.0 Services. Web 3.0 Game Development Transform the gaming experience and make them stay with in-game rewards using blockchain technology. Giving your users more control over minting, trading, and buying digital assets with Web3 Development services. Web 3.0 Integration Services Incorporate advanced features through integration services and build user-driven platforms that offer data security. Web 3.0 Marketplace Development Deploy your online marketplace with Web3 services to engage your clients and get them to make purchases. Web 3.0 Education Platform Provide accessibility to high-quality education worldwide and tap into the potential of online education. Web 3.0 Application Development Develop a decentralized application from scratch and launch it for your customers for higher conversions online. Web 3.0 Event Platform Start a Web3 platform that facilitates communication among users and blockchain, backed by smart contracts to host events. Web 3.0 Corporate Office Setup Optimize your business operations through Web3 Development services and scale your business to increase sales. '

102-'MoogleLabs provides Bespoke Web 3.0 Development Solutions & Services Enterprise Solution We first decode enterprise needs & then create web solutions that meet end-customers needs in Web 3.0 space. Intelligent Apps Offer Intelligent apps that can automate complicated tasks and personalize experience through user behavior. Portal Development Set up apps that offer a diverse range of information with secure and scalable Web 3.0 infrastructure.'

103-'Semantic Web 3D Graphics Ubiquity Decentralized web-element Artificial Intelligence Connectivity Blockchain Edge Computing'

104-'Here are the various languages that we use as a Web 3.0 Development Company Spatial Technologies Head-Mounted Displays 3D Reconstructions Digital Currency Gaming Non-Fungible Token (NFTs) AR Cloud Internet of Things (IoT) Virtual Reality Artificial Intelligence Augmented Reality Machine Learning Blockchain'

105-'solidity VYPER JS PYTHON RUST MOVE'

106-'Personalization Our professionals have the expertise to comprehend each client’s needs and recommend the appropriate solution. Interoperability We engage in compatible cross-domain interaction with high-quality execution of extant functionalities that are combined within the web app architecture. Innovation The utilization of advanced technologies as elemental components allows our experts to provide solutions that have the potential to change the industry. Deep Technology Expertise Our team comprises experts who are top players in their respective niches, giving us the capability to develop practical solutions for complex problems.'

107-'Web 3.0 or Web3 is the third generation of the World Wide Web (WWW). Currently a work in progress, it is a vision of a decentralized and open web with greater utility for

its users. Web 2.0 is the second and current generation, succeeding Web 1.0 of the 1990s and early 2000s. Web 2.0 is the version of the internet (a term often used interchangeably with the web) with which all of us are familiar. Web refers to the World Wide Web, the internet’s core information retrieval system. The WWW initials used to (and often still do) preface a web address and were among the first characters typed into a web browser when searching for a specific resource online. Internet pioneer Tim Berners-Lee is credited with coining the term World Wide Web to refer to the global web of information and resources interconnected through hypertext links'

108-'Decentralization This is a core tenet of Web 3.0. In Web 2.0, computers use HTTP in the form of unique web addresses to find information, which is stored at a fixed location, generally on a single server. Web 3.0 information will be found based on its content, and thus can be stored in multiple locations simultaneously. It becomes decentralized. This would break down the massive databases currently held by internet giants like Meta and Google and would hand greater control to users. With Web 3.0, the data generated by disparate and increasingly powerful computing resources, including mobile phones, desktops, appliances, vehicles, and sensors, will be sold by users through decentralized data networks, ensuring that users retain ownership control. Trustless and Permissionless As it is based upon open source software, Web 3.0 will also be trustless (i.e., the network will allow participants to interact directly without going through a trusted intermediary) and permissionless (meaning that anyone can participate without authorization from a governing body). As a result, Web 3.0 applications will run on blockchains or decentralized peer-to-peer networks, or a combination thereof. Such decentralized apps are referred to as dApps. Artificial Intelligence (AI) and Machine Learning In Web 3.0, computers will be able to understand information similarly to humans, through technologies based upon Semantic Web concepts and natural language processing. Web 3.0 will also use machine learning, which is a branch of artificial intelligence (AI) that uses data and algorithms to imitate how humans learn, gradually improving its accuracy. These capabilities will enable computers to produce faster and more relevant results in a host of areas like drug development and new materials, as opposed to merely targeted advertising that forms the bulk of current efforts. Connectivity and Ubiquity With Web 3.0, information and content will be more connected and ubiquitous, accessed by multiple applications and with an increasing number of everyday devices connected to the web. One example of this is the Internet of Things.'

109-'Web 3.0 has the potential to provide users with far greater utility, going well beyond the social media, streaming, and online shopping that comprise the majority of Web 2.0 applications that consumers use. Capabilities like Semantic Web, AI, and machine learning, which are at the core of Web 3.0, have the potential to greatly increase application in new areas and vastly improve user interaction. Core features of Web 3.0, such as decentralization and permissionless systems, will also give users much greater control over their personal data. This may help limit the practice of data extraction (the collecting of information from web users without their consent or compensation) and curb the network effects that have enabled the technology giants to become near-monopolies through exploitative advertising and marketing practices. However, decentralization also brings with it significant legal and regulatory risks. Cybercrime, hate speech, and misinformation are already difficult to police and will become even more so in a decentralized structure because of the lack of central control. A decentralized web would also make regulation and enforcement very difficult. For example, which country’s laws would apply to a specific website whose content is hosted in numerous nations globally?'

110-'If you are making plans for a vacation and are on a budget, you currently would have to spend hours looking for flights, accommodation, and car rentals, trawling through numerous websites and comparing prices. With Web 3.0, intelligent search engines or bots will be able to collate all this information and generate tailored recommendations based on your profile and preferences, saving you hours of work.'

111-"Because of its key decentralization feature, Web 3.0 lends itself to technologies such as blockchain, distributed ledger, and decentralized finance (DeFi). The Bottom Line To use a cinematic analogy, if Web 1.0 represented the black-and-white movie era, Web 2.0 is the age of color/basic 3D, while Web 3.0 would be immersive experiences in the metaverse. Just as the 2010s were the decade when Web 2.0 became the dominant force in the global business and cultural landscape, it might be Web 3.0’s turn in the 2020s. Facebook’s name change to Meta on Oct. 28, 2021, could well turn out to be an early sign that the shift to Web 3.0 is picking up steam.8 SPONSORED Trade on the Go. Anywhere,

Anytime One of the world's largest crypto-asset exchanges is ready for you. Enjoy competitive fees and dedicated customer support while trading securely. You'll also have access to Binance tools that make it easier than ever to view your trade history, manage auto-investments, view price charts, and make conversions with zero fees. Make an account for free and join millions of traders and investors on the global crypto market."

112-'Now is The Time to Create Virtual Real Estate Earn from your digital assets! Collaborate with us to turn art into a source of income with NFT Development Services.'

113-'NFTs have the potential to become your identity online. Moreover, it is already becoming a form of attaining art that people can buy and then sell for profit. Some common NFTs that users can include audio samples, films, memes, music, digital art, and many others. Moreover, people need appropriate wallets to store and exchange these NFTs leading to more business opportunities for service providers. NFT has the potential to become a separate marketplace that will survive and thrive in the era of Metaverse and Web 3.0. The high level of traceability and provisions for collecting royalty payments makes NFT the desired choice of independent artists. '

114-'Our skilled professionals who have years of experience in the IT industry offer NFT token development and NFT marketplace development solutions for individual clients and enterprises. We have a vast experience of working on projects related to NFT using various blockchains and related technologies. We can help you create NFTs-based solutions, submit the product for bids, transfer the assets, and redeem the NFTs and market it.'

115-'NFT marketplaced Development NFT Exchange Development NFT marketplaced Development Social Token Development NFT marketplaced Development NFT Smart Contract Development NFT marketplaced Development NFT Marketplace Development NFT marketplaced Development NFT WalleT NFT marketplaced Development White-Label NFT Marketplace NFT marketplaced Development NFT Art Marketplace Development NFT marketplaced Development NFT Music Marketplace Development NFT marketplaced Development NFT Sports Marketplace Development NFT marketplaced Development DAO Enabled NFT Marketplace NFT marketplaced Development Physical Assets NFT Marketplace NFT marketplaced Development Utility NFT Marketplace'

116-'Proof of Ownership NFT marketplaced Development Digital Collectability NFT marketplaced Development Transfer of Value NFT marketplaced Development Governance NFT marketplaced Development Accessibility NFT marketplaced Development Interoperability'

117-'Nordish Warrior Floor : 0.65 ETH NFT marketplaced Development Lion Warrior Floor : 0.68 ETH NFT marketplaced Development Dark Knight Floor : 0.66 ETH '

118-'Token Standards Are Based On Pre-Coded Principles That Dictate The Token Transfers. The Smart Contracts Should Conform To These Standards. Here Are Some Token Standards We Follow. ERC-721 It Is A Token That Permits The Smart Contracts To Function As Tradeable Tokens. These Tokens Are Non-Fungible. NFT marketplaced Development ERC-1155 This Token Standard Allows The Deployment Of Contracts With Varied Combination Of Fungible, Non-Fungible, And Semi-Fungible Tokens. NFT marketplaced Development TRC-721 TRC-721 Is The Primary NFT Standard On TRON That Allows Applications To Track The Tokens. These Tokens Are Highly Scalable With No Limit On Data Transfer.'

119-'ETHEREUM CARDANO SOLANA FLOW ALGORAND EOS WAX BINANCE SMART CHAIN TRON T3 TEZOS'

120-'SOLIDITY JS GO PYTHON'

121-'NFT applications are already helping transform these sectors NFT Landing Platform Art Gaming Industry Metaverse NFT Real Estate Sports Content Subscription Custom Development of NFT Marketplace Cross-Chain NFT Music Fractionalized NFT NFT Education Platform'

122-'Technical Prowess Our team has skilled professionals who offer bespoke NFT Development services. Innovative Outcomes We work on creating more innovative products while handling every project. Rapid Development We maintain a high standard of services while ensuring timely delivery. Complete Support Post-sales support is available to clients who avail our services for tokens or marketplace Development. Tangible Results We believe in offering our best to ensure that our clients attain value from investment. '

123-'Non-fungible tokens (NFTs) are assets that have been tokenized via a blockchain. They are assigned unique identification codes and metadata that distinguish them from other tokens. NFTs can be traded and exchanged for money, cryptocurrencies, or other NFTs—it all depends on the value the market and owners have placed on them. For instance, you could use an exchange to create a token for an image of a banana. Some people might pay millions for the NFT, while others might think it worthless. Cryptocurrencies are tokens as well; however, the key difference is that two cryptocurrencies from the same blockchain are interchangeable—they are fungible. Two NFTs from the same blockchain can look identical, but they are not interchangeable.'

124-'NFTs are created through a process called minting, in which the information of the NFT is recorded on a blockchain. At a high level, the minting process entails a new block being created, NFT information being validated by a validator, and the block being closed. This minting process often entails incorporating smart contracts that assign ownership and manage the transferability of the NFT. As tokens are minted, they are assigned a unique identifier directly linked to one blockchain address. Each token has an owner, and the ownership information (i.e., the address in which the minted token resides) is publicly available. Even if 5,000 NFTs of the same exact item are minted (similar to general admission tickets to a movie), each token has a unique identifier and can be distinguished from the others. Blockchain and Fungibility Like physical money, cryptocurrencies are usually fungible from a financial perspective, meaning that they can be traded or exchanged, one for another. For example, one bitcoin is always equal in value to another bitcoin on a given exchange, similar to how every dollar bill of U.S. currency has an implicit exchange value of $1. This fungibility characteristic makes cryptocurrencies suitable as a secure medium of transaction in the digital economy. 5 For this reason, NFTs shift the crypto paradigm by making each token unique and irreplaceable, making it impossible for one non-fungible token to be "equal" to another. They are digital representations of assets and have been likened to digital passports because each token contains a unique, non-transferable identity to distinguish it from other tokens. They are also extensible, meaning you can combine one NFT with another to create a third, unique NFT.'

125-"Perhaps, the most apparent benefit of NFTs is market efficiency. Tokenizing a physical asset can streamline sales processes and remove intermediaries. NFTs representing digital or physical artwork on a blockchain can eliminate the need for agents and allow sellers to connect directly with their target audiences (assuming the artists know how to host their NFTs securely). Investing NFTs can also be used to streamline investing. For example, consulting firm Ernst & Young has already developed an NFT solution for one of its fine wine investors—by storing wine in a secure environment and using NFTs to protect provenance. 10 Real estate can also be tokenized—a property could be parceled into multiple sections, each containing different characteristics. For example, one of the sections might be on a lakeside, while another is closer to the forest. Depending on its features, each piece of land could be unique, priced differently, and represented by an NFT. Real estate trading, a complex and bureaucratic affair, could then be simplified by incorporating relevant metadata into a unique NFT associated with only the corresponding portion of the property. NFTs can represent ownership in a business, much like stocks—in fact, stock ownership is already tracked via ledgers that contain information such as the stockholder's name, date of issuance, certificate number, and the number of shares. A blockchain is a distributed and secured ledger, so issuing NFTs to represent shares serves the same purpose as issuing stocks. The main advantage to using NFTs and blockchain instead of a stock ledger is that smart contracts can automate ownership transferral—once an NFT share is sold, the blockchain can take care of everything else. Security Non-fungible tokens are also very useful in identity security. For example, personal information stored on an immutable blockchain cannot be accessed, stolen, or used by anyone that doesn't have the keys. NFTs can also democratize investing by fractionalizing physical assets like real estate. It is much easier to divide a digital real estate asset among multiple owners than a physical one. That tokenization ethic need not be constrained to real estate; it can extend to other assets, such as artwork. Thus, a painting need not always have a single owner. Instead, multiple people can purchase a share of it, transferring ownership of a fraction of the physical painting to them. Such arrangements could increase its worth and revenues because more people can purchase parts of expensive art than those who can buy entire pieces."

126-'dApp Development Company creating Decentralized Applications for unparalleled User Experience'

127-'The world of Blockchain and the core technology behind it is a gateway to a world where you can use the spare capacity of computers globally to serve people and businesses. DApp stands for decentralized applications that will work on the peer-to-peer computer network, not the central servers we know today. The use of Blockchain will make it safer and more secure. The industry is expected to reach well above $300 billion market capitalization by 2027 – A clear testament to its exponential potential.'

128-'The world of Blockchain and the core technology behind it is a gateway to a world where you can use the spare capacity of computers globally to serve people and businesses. DApp stands for decentralized applications that will work on the peer-to-peer computer network, not the central servers we know today. The use of Blockchain will make it safer and more secure. The industry is expected to reach well above $300 billion market capitalization by 2027 – A clear testament to its exponential potential.'

129-'Leverage The Power of Decentralized Applications to improve customer experience. Crypto Token Development dApp Consultation Our experts will analyze your idea, determine possible stakeholders, identify technical components, & suggest the blockchain platform for dApp development. Crypto Exchange Development User Interface Design From ideation to the final product, we create a highly systematic and structured user interface design process with a proven track record of creating engaging dApps. NFT Marketplace Development Decentralized Exchange Avail our services to create highly scalable & customized DEX platforms that facilitate peer-to-peer transactions & completely nullify the need for intermediaries. NFT Marketplace Development Smart Contracts Contracts writing, testing, and deploying services on various blockchains like Ethereum, Polkadot, Polygon, and others. We also offer smart contract optimization for any desired functionality. Crypto Token Development Decentralized Gaming Apps We can make next-gen gaming dApps that leverage AR, VR, spatial computing, and 3D creation tools. Moreover, our dApp developer can add the play-to-earn model. Crypto Exchange Development dApp Porting Migrate your dApp to the blockchain platform of your choice with us. We will help you find the blockchain that meets your need and move your dApp to the platform. NFT Marketplace Development dApp Upgrade Services As a blockchain dApp development company, we offer continuous, comprehensive, and time upgrade services to prevent dApp downtimes and improve user experience. NFT Marketplace Development MVP Consultation Our experts stay updated with the latest dApp market trends and can provide insights into your idea’s potential.'

130-'Our Services are not limited to these use cases. As convergent thinkers, we will first take your input and create the perfect solution to meet your needs. NFT Ticketing dApps Digital Collectabilit Gaming dApps Self-learning chatbot applications Social Media dApps NLP Applications DeFi dApps'

131-'ETHEREUM HYPERLEDGER EOS T3 TEZOS CORDA STELLER HEDERA HASHGRAPH TRON '

132-'Geth To launch the Ethereum node, create contracts, mine ether, transfer funds between addresses, and explore block history. Blockchain Testnet To test the dApp before launching it on the mainnet to avoid bugs and issues. Zeppelin We use Zeppelin tools for security audits on smart contracts, and it helps manage reusable smart contracts efficiently. BlockStack Our Blockchain dApp development uses this tool to create scalable dApps that make users owners of their data. Truffle TIt offers the required development environment and asset pipelines needed for Ethereum application development. Remix WIt is the browse-based IDE that we use to create, deploy, debug and test smart contracts made using Solidity language. '

133-'SOLIDITY JAVA SCRIPT NODE JS PHP GO'

134-'ANGULAR JS REACT VUE JS'

135-'AZURE GOOGLE CLOUD AWS'

136-'Technical Skills Our team has members with technical skills to provide excellent dApp solutions. R&D Labs Our R&D labs facilitate the research, creation, and validation of your ideas to create the best products. Innovative Outcomes Our diverse team of experts provides innovative dApp development services to every client. Complete Support During and after the development process, we offer complete support for clients. Interoperable Standards We use interoperable standards to ensure the best dApp Solutions

for every project.'

137-'Cryptocurrency and blockchain DApp development are still the main attention-grabbers for startups and business owners around the world. Even though cryptocurrency is only a blockchain’s byproduct, it is still the leading object of interest among investors and those who want to become one in the near future. If you haven’t heard about blockchain, DeFi, and cryptocurrencies like Bitcoin, it can be fairly considered a miracle because they seem to be everywhere on the news these days. However, if you do know about them and wonder how to develop DApps and turn them into your own source of income, you may find this article useful and informative. Very likely, you’ve heard about DApp once or twice at best. But what if we tell you that you’ve somehow dealt with a DApp for a while without even knowing it. How come? Well, Bitcoin is the very first DApp (decentralized application), and you hear about this cryptocurrency a lot.'

138-'DApp development is a relatively young IT area and we have a great chance to witness its growth and transformations, and actively participate in this process. In a nutshell, a decentralized app is similar to the ones you use on your computer, tablet, or smartphone. The only difference is that a regular app is centralized and runs on one single computer, whereas DApp is decentralized, which means it runs on a P2P blockchain network. If you want to decentralize something, it has to be built using blockchain technology. A blockchain is basically a public distributed ledger of information with all crucial data stored as databases. The distributed ledger mentioned above is layered by cryptographic protection, making data end-to-end encrypted. Unlike regular apps, DApps are built on Ethereum’s blockchain, which makes them superior to the rest. DApp’s front-end (client-side) code can be written in any programming language, making its back-end (server-side) code run on a P2P network like Ethereum. This network is blockchain-powered; thus, you can use it to build a DApp for your business needs. Developing DApps has so many benefits to offer. Here are the main advantages and characteristics: Being open-source. Decentralized applications are open source, which means anyone can view their source code. Surprisingly, this makes DApp’s source code secure and protects it from unwanted or fraudulent modifications, alterations, and other actions. Running on a public blockchain. This means that DApp developers with different levels of knowledge can join an existing public network and participate. For example, using Ethereum, which is a public blockchain, they can make a wide range of applications. The most common types of DApps are collectibles, finances, gaming, and others. The Ethereum blockchain. Decentralized apps use Ethereum for storing data and smart contracts for their app logic. Greater benefits. Being decentralized, DApps safeguard user privacy, have no censorship, and are flexible in terms of development. Cryptographic algorithm. This algorithm is the major participant in the token generation process. In fact, cryptographic algorithms are basically DApp development compiling programs.'

139-'DApps function similarly to regular websites, web, mobile, and desktop apps. The only yet crucial difference between them is hosting, which is hidden from the user’s eye. While regular applications and websites are hosted on cloud-based or local servers, decentralized apps run on a public blockchain, which is a network node. A network node is the connection point that allows switches, routers, together with other network devices to send and receive data between them. To create a DApp, you need to understand how a blockchain works. A blockchain typically maintains a data-recording open ledger, and comparable or identical copies are managed within the network of nodes. These nodes are computers that run on your software to play the role of compatible nodes. As we know, a blockchain is an identical ledger, so every network node has an infinite number of ledger copies across every network node. The combination of these specific components and processes makes the network immutable. If there is a compatibility shortage on one ledger, the system will cancel that ledger. This would increase security by reducing the possibility of hacking. All the safety DApp development offers make it highly attractive for a wide range of digital business products. Blockchain mining is executed by the miners who verify the transaction and transmit it to the network to secure it. Mining takes tons of computational and algorithmic work; hence, users reward DApp developers with tokens. For this reason, users need to have a wallet with blockchain tokens for their DApps. Most DApps are created using the Ethereum blockchain, which makes having ETH tokens a must for users.'

140-'Bring Democracy to Organizations DAO Development Services Create An Organization for the people, by the people, & from the people.'

141-'Blockchain offers a single, secure, and shared system that comes with an abundance

of features. DAO platform development helps entrepreneurs overcome several challenges that come with running a traditional centralized business. So, we help create the ultimate Decentralized Autonomous Organization that fits your vision while remaining automated, owner-free, and high-performance.'

142-"Explore The Potential of DAO Development DAO DApp Development We create the perfect DApps and build innovative solution that fits your business needs and customers' expectations. DAO Smart Contract Development We create DAO smart contracts to help the functioning of the platform. The immutable contracts make it easier to follow the rules. DAO Node Development We can create nodes that allow users to vote on DAO. Use the node to validate decisions on DAO platform. DAO Platform Development We design and develop a DAO-based platform with exceptional features and functionality to enable transparent transactions. DAO Enabled NFT Platform We develop and deploy custom white-label solutions that facilitate smoother NFT platform transactions like minting, selling, and buying. DAO Blockchain Development Select blockchain technology with our experts, and we can deploy the solutions on the app or website of your choice. DAO Integration Development Integrate DAO on your existing platforms in only a few steps. Get in touch for DAO integration services today. Technology Consultation Get a free-tech consultation from our experts who will first understand your business needs and create the perfect solution. "

143-"Open Source Code Only after the conclusion of the financing time frame is DAO deployed. Once deployed, it becomes an independent identity autonomous of users and makers with an open-source code available to all the participants. DAO token While the DAO rules are being sent, the financing state continues. These rules must have an interior property to assist economic growth and allow financing. Based on Smart Contracts To create an effective DAO blockchain, you must first develop guidelines that dictate the platform's functioning. These rules are coded in smart contracts. Using Blockchain Technology Blockchain technology enables organizations to work in an autonomous and decentralized way. It is so because users can exercise command and exchange choices, making DAOs transparent, incorrupt, and immutable."

144-'Smart Contract Creation Firstly, the DAO developers will create smart contracts with thorough testing. The developers consider all of the essential details during this process. Funding After making smart contracts, we assist in finding the best ways to get funding and enact governance. Here, we also design the tokens to raise funds & serve voting rights. Deployment After this, we create the DAO platform using the blockchain technology of your choice. Once the product is deployed, we lose any authority to influence the project'

145-'Generate Trust Among Your Users & Get Them to Invest in Your Idea! Complete Decentralization Create a hierarchy-free platform that gives users a say in the company’s decisions. Transparent Policies With a smart contract-based platform, you enable users to read the platform policies and suggest changes before investing. Events Involvements DAO platforms engage users by letting them participate in events like launches, sales, and more. Voting Power DAO platforms give users voting powers, helping them guide the decisions in the company. '

146-'Let Us Breathe Life into Your Ideas! Technical Skills Our team of experts has the technical know-how to create the perfect products for you. Expert Team Our team offers an innovative yet experienced approach to bringing every project to a conclusion. Rapid Development We create a coherent roadmap to keep our pace of work smooth and ensure proper DAO Development. Complete Support Expect continuous support even after the product launch with our extensive post-delivery services. Meaningful Outcomes We create products that add value to your business and bring significant ROI'

147-'In 2016, Decentralized Autonomous Organization or DAO (pronouns DOW) launched in the nascent structure for the organization built with blockchain technology, it can also be called a crypto co-op (alternatively, as a “financial flash mob” or a group chat with a bank account) The purest form of the DAO is groups that form for a common purpose, like investing in start-ups, managing a Stablecoin, or buying a bunch of NFTs. It is a community-led, transparent, and autonomous entity that operates independently of any central authority. In the blockchain organization, DAOs are the process of governing bodies that oversee the allocation of resources tied to the projects they are associated with and also has tasked with ensuring the long-term success of the project they support.-\n'

148-'The basic aspect while starting an industry is covered with the huge funding and trust to work with the people. Meanwhile, the same process over the internet is much more problematic to trust, communicate, and work with a person. With DAOs, we do not need to rely on anyone else in the group, only DAO code, which is 100% clear and proven by anyone.'

149-'People will earn based on their daily life activities like playing games, investing, learning a new skill, etc. M2E game Development Fully transparent in all activities New potentials for global collaboration Computerized voting of its members Dynamic platforms for anyone can earn'

150-"Decentralized The autonomy depends on the right & condition of the self-financed work model. Decentralized is a strong, powerful, and secure way to collaborate with like-minded people all around the world. This gives the basic foundation for secured and futuristic benefits in Blockchain systems. Open Source Code DAOs are held in reserve until the fundraising period ends and the DAO is deployed. Then, by developing an open-source code that is accessible to all participants, it transforms into an independent identity that is independent of outsiders and its creators. DAO Token As you put up the DAO rules, the financing state remains. During the financing phase, it's critical to ensure that these standards have an inner property that allows for actual economic growth at any moment and enables financing. Blockchain Technology The autonomy depends on the right & condition of the self-financed work model. It is organizations can work in a self-contained and decentralized manner. This is due to the fact that users have control over the exchange and can make decisions."

151-"The foundation of the DAO is its smart contract. The contract lays out the rules of the organization and group treasury. Once the smart contract is moved to live on the Ethereum platform, then no one can change the rules guidance except by a vote. This is possible because smart contracts are tamper-proof once they go live on Ethereum. It will fail if someone tries to change something that isn't covered by the code's rules and reasons. Because the treasury is also established by the smart contract, no one can use the money without the permission of the organization. As a result, DAOs do not necessitate a centralized authority. Instead, the group makes decisions collectively, and when votes are passed, transactions are automatically permitted. You can't arbitrarily change the code (the DAO's rules) without everyone noticing because everything is public."

152-"Trustless The biggest benefit of DAO is that it is inherently trustless. You are not required to trust any CEO, management, or leader with your decision-making when working in a DAO. Even if the main developer abandons the project or finance stops flowing, the program or the organization as a whole will continue. No shutdown Another advantage is that DAO cannot be shut off. If any of the main government institutions like the FBI, CIA, or any other government entity intervenes, DAO will never cease working. It has no legal authority to provide any information to any of these government agencies. Open-Source DAO is an open-source platform, which implies that its code is publicly available, allowing users to collaborate and enhance the platform. Open-source platforms are far more dependable because they are supported by a global community of developers. As a result of everyone's fair participation and openness, the DAO's mechanism improves."

153-'Moogle Lab is a DAO Development company that challenges centralized businesses to be overlooked by conventing into Decentralized with the cost-effectiveness. It was earmarked to act as an investor-directed venture capital firm. We highly performed DAO platforms to eliminate security threats. We have developed top-level functionalities with market needed features for the DAO of your users. We provide a single, secure, and feature-rich shared system. Our blockchain experts will help you to refine your offering and suggest the most suitable tech approach. Using Our DAO blockchain development services, we offer 100% transparent transactions, mandatory voting for implementing new changes, and for handling services automatically in a standardized manner.'

154-'IoT Development Company Full-stack IoT Development Services, to Unlock Data Potential & Accelerate Growth'

155-'A Multi-billion Dollars Industry Here to Serve You! IoT market share is predicted to reach USD 650.5 Billion by the year 2026. IoT, which stands for Internet of Things, refers to the devices connected with the internet to provide remote access or send information. Several devices in households, factories, business, cities, and farms are accessible online through this technology. Some examples of IoT include “smart” fridges,

webcams, washing machines, etc. The purpose of IoT is to make the world more accessible, collect relevant data, and make life easier. With the right IoT app development company, your business can also leverage the technology to make smarter products, streamline operations, and improve customer experience.'

156-'With experienced experts in the IT world, we make the perfect partners to help you advance in your journey to leverage IoT technology. Our proven track record with successful implementation of the technology and our custom IoT Development services allow us to create the ideal solutions to match your needs. Hire our IoT app developers for the entire process, starting from product conceptualization to complete development services. We can create custom IoT applications to meet your needs, while maintaining the highest level of security.'

157-'IoT Hardware Design Protyping smart IoT devices to test concepts before full-scale development using IoT Sensors and boards. IoT Firmware Integration Develop and integrate embedded software and firmware in preferred IoT and M2M devices. Mobile Apps for IoT Devices Cross-platform and Native mobile apps that offer on-the-go access to data harnessed using smart devices. IoT Dashboards Configure IoT devices, analyze sensor data using BI tools, and remote IoT system management with display through responsive dashboards. Edge Computing Utilization of edge computing to lower latency rates and facilitate quicker data offloading time compared to traditional cloud computing. Custom IoT Product Development Custom IoT application development services with features to interact with IoT devices and ensure seamless software and hardware collaboration.'

158-'Now imbued with features that matter Scalability Connectivity Artificial Intelligence Security Dynamic Nature Endpoint Management Integration Analyzing'

159-'Microsoft Azure IoT HUB PREDIX GOOGLE CLOUD THINGWORX AWS IoT'

160-'Bluetooth ZigBee Sigfox Wi-Fi LAN NFC RFID Ethernet'

161-'HTTP/HTTPS LoRaWAN TCP Bluetooth Low Energy MQTT DDS AMQP Homekit OpenIoT Nest'

162-'AWS GOOGLE CLOUD AZURE'

163-'Arduino iBeacons Raspberry Pi Eddystone beacons OBD devices Miniature Boards'

164-'A Complete Development Team Our complete team of custom IoT development services providers dedicated to providing high-quality services and solutions for your project. Team Extension People with in-house team that want external expertise to help streamline or improve projects can hire us for additional support. Project-based Model Use the project-based model and internet of things app development experts for specific customer collaboration and client project engagement.'

165-'Device Hardware Device Software Operating System OS Application Connectivity'

166-'Understanding Requirement Planning and Consulting Development Deployment Upgrades '

167-'Technical Skills Our team has members with technical skills to provide excellent dApp solutions. R&D Labs Our R&D labs facilitate the research, creation, and validation of your ideas to create the best products. Innovative Outcomes Our diverse team of experts provides innovative dApp development services to every client. Complete Support During and after the development process, we offer complete support for clients. Interoperable Standards We use interoperable standards to ensure the best dApp Solutions for every project.'

168-'Making Transactions Easier Crypto Wallet App Development Company Avail end-to-end cryptocurrency wallet development services! Help your clients manage their cryptocurrencies and NFTs all in one place'

169-'The world of cryptocurrency is growing at a significant rate. With a projected CAGR of 12.2%, it is expected to become a multi-billion-dollar industry by 2028. Before we dwell into the nitty-gritty detail of crypto wallet solutions, we first must understand cryptocurrency. It is a new digital currency with open ledgers and a set of rules to ensure safe and secure transactions at all times. Moreover, it is a tool that offers higher privacy to users. With a decentralized system in place, cryptocurrencies are

almost impossible to hack and can facilitate immutable recordings of transactions.'

170-'Hire our skilled professionals with years of experience in the IT industry, working on revolutionary technologies for decades, including crypto wallet development solutions. We can help you build non-custodial crypto wallets. It includes decentralized crypto wallet development services for Blockchain projects, Defi Trading and investment, and DEXs platforms. Leverage our services to launch these wallets for Desktop, Mobile, and web browser extensions.'

171-'Gateway to secure, fast, and seamless crypto loans, payments, and trading experiences As a Blockchain wallet development company, we create and launch non-custodial crypto wallets to help increase your DeFi portfolio to more customers by ensuring improved security, faster transactions, and complete control of crypto assets. With us, you can also customize your crypto wallet with unique features like facial biometrics, QR Scanner, automatic conversion rates, and more. Mobile Wallet Crypto wallets are accessible from mobile devices and compatible with iOS and Android platforms for on-the-go users. Desktop Wallet Ready-to-install desktop crypto wallets compatible with Windows, Mac, Linux, and other operating systems of choice. Web Wallet as browser extensions Make your property accessible to all who want a look without going anywhere using Web3 Development Solutions.'

172-'Business & technical analysis Architecture design Fidelity design Smart contract development Frontend-backend development Deployment'

173-'01 Easy integrations with all DeFi Platforms to reach millions of users. 02 Cross-platform compatibility for operating systems of your choice. 03 Storage of multiple cryptos (ETH, BTC, altcoins, etc.) in a single wallet. '

174-"Selling Minimum latency through the provisions of direct selling of cryptos to get money in the card. Swapping Token swapping functionality to remove the need for separate wallet integration services. Staking Enables users to stake their cryptos security and indulge in trading activities across DeFi platforms. Vendor payments Easy payments in cryptocurrencies through QR codes to ease consumer services. Cash-out Quick and easy withdrawals, deposits, and transfers of cryptocurrencies to the user's choice cards. API connections to Crypto Exchanges One-stop solution for users to buy or sell cryptocurrencies of their choice without leaving the platforms. Auto denial of duplicate payments The wallet feature to detect and deny duplicate payments help avoid chargebacks. QR code scanner Remove the need for jotting down wallet addresses with the automatic QR code scanning of addresses."

175-'Protected against hacks Zero downtime Immune to cross-border regulations Ease of use Easy transfer and low fees Enhanced security and encryption'

176-'Dedicated Development Team Get high-quality services and solutions with our hands-on Blockchain developers. Team Extension We offer a team extension model for clients who want to add the right expertise to the team. Project-based Model Customer collaboration and specific project engagement through our software development specialists. '

177-'Cryptocurrency wallets store users’ public and private keys, while providing an easy-to-use interface to manage crypto balances. They also support cryptocurrency transfers through the blockchain. Some wallets even allow users to perform certain actions with their crypto assets, such as buying and selling or interacting with decentralised applications (dapps). It is important to remember that cryptocurrency transactions do not represent a ‘sending’ of crypto tokens from a person’s mobile phone to someone else’s mobile phone. When sending tokens, a user’s private key signs the transaction and broadcasts it to the blockchain network. The network then includes the transaction to reflect the updated balance in both the sender’s and recipient’s address. So, the term ‘wallet’ is somewhat of a misnomer, as crypto wallets don’t actually store cryptocurrency in the same way physical wallets hold cash. Instead, they read the public ledger to show the balances in a user’s addresses, as well as hold the private keys that enable the user to make transactions.'

178-'A user’s cryptocurrency is only as safe as the method they use to store it. While crypto can technically be stored directly on an exchange, it is not advisable to do so unless in small amounts or with the intention of trading frequently. For larger amounts, it’s recommended that a user withdraws the majority to a crypto wallet, whether

that be a hot wallet or a cold one. This way, they retain ownership of their private keys and have full power and control over their own finances. '

179-'a wallet doesn’t technically hold a user’s coins. Instead, it holds the key to their coins, which are stored on public blockchain networks. In order to perform various transactions, a user needs to verify their address via a private key that comes in a set of specific codes. The speed and security often depend on the kind of wallet a user has. '

180-'Crypto wallets fall under two general categories: software wallets and hardware wallets. Software wallets are simply desktop programs or browser extensions that make it easy for people to send, receive, and store crypto. Hardware wallets serve a similar purpose but are physical devices that can be plugged into a computer. Software wallets are sometimes called "hot" wallets because the funds are kept online. Hardware wallets keep private keys held offline or in "cold" storage. Hardware wallets A hardware wallet is a small device that can store crypto offline. "A hardware wallet keeps your keys off of your phone or computer," saya Dietz. "Usually, you plug in the hardware wallet from a USB port. This is much more secure because all of the signing happens off of your computer." The typical hardware wallet costs around $100, give or take. These tend to be slightly more complicated to use than software wallets. Most hardware wallets interact with a computer in one of three ways: A web-based interface A company-created app A separate software wallet Software wallets A software wallet is a computer program or mobile app that holds private keys online. Software wallets are unique to each cryptocurrency while hardware wallets often support multiple currencies (more on these differences later). "[Software wallets] can either be used on the web, in which case they are custody wallets, which aren\'t completely secure. Or they [can come] in the form of apps that can be installed on a phone/laptop, in which case the private keys are stored on the local device," says Dar. "These may be connected to the internet, again making them less secure." '

181-'Coinbase Wallet - Best for Beginners MetaMask - Best for Ethereum TrustWallet - Best for Mobile Ledger Nano S Plus - Best Hardware Crypto Wallet Electrum - Best Desktop Bitcoin Wallet BlueWallet - Best Mobile Bitcoin Wallet Exodus - Best for Desktop Crypto.com - Best deFi wallet'

182-'case study- Automating The Generation Of Product Descriptions Using Catalog Images Occupy the word smiths with writing to inspire! AI description generators can handle the rest. Overview The idea was to be able to generate copies, track the resultant customer engagement with the product and continuously improve the copy to create higher interaction and sales. All without having to train human writers in the company’s preferred style of writing the descriptions. Client A leading name in e-tailing of fashion apparel and shoes. Business Requirement Work Requirement: Wanted help in creating an AI description generator for product descriptions and feature listings on its website. Preferable Outcome Reduce the time, effort and copy writing errors inherent in its manual process. Reduce Manual Effort The Automated Approach Reduces The Manual Effort Required To Generate, Validate And Check The Product Descriptions. Moreover, It Ensures That The Resulting Copy Doesn’t Have Any Grammatical Or Spelling Errors. A Trained NLP Model Generates The Descriptions Using Only The Product Images As Inputs. It Detects The Key Features Of The Product And Describes Them Appropriately. Types of Copy The model has been trained to generate different types of copy for the product. The AI description generator can create a product’s name, a short description, and a longer description that builds on top of the short description by elaborating on the different elements captured in the short description. This ensures that all product-related copies on the site are generated automatically. Consequently, it helps increase the speed with which the client can refresh his online inventory. Consistent Style As the model was trained on the existing samples of the merchant’s product descriptions, it ensured that the automated descriptions matched the merchant’s style guide and brand positioning. This AI-powered solution reduced the time and effort spent on onboarding new copy writers. Existing manpower was deployed for reviews and to generate copy for products that the model wasn’t yet trained on. '

183-"A Blockchain-Powered LMS Transforming the Education Sector Mooglelabs APP-The Solution To Learning Industry’s Fraud Instances Challenges Learning standards have got a new hold these days! But the education industry stakeholders' reactions are not aligned with the much-required transition movements. A gap has been built and is continuing to widen with issues such as data protection, outdated certification processes as well as

data accessibility and archiving. There was a high need for the solution to bring in a positive technical revolution in the education sector.How Are We Winning With The Mooglelabs Solution For Blockchain Powered LMS?We have carved out the solution to learn about the industry's fraud instances and boost the transformation of the education sector. The app has been widely used in different application domains, which include energy preservation, healthcare, e-commerce, social media, etc. The solution has included analyzing and mining certain types of data that include demographics, preferences, social interactions, and much more down the line. This has brought out the best. Such kinds of datasets include sensitive information, and it is majorly focused on risk reduction techniques only. Before, none of them has been successful in ensuring crypto security or user privacy with different techniques used till now. In order to fill the gap, blockchain technology has arrived as the most promising strategy or tactic. This all has been done so that there can be privacy preservation, not just due to security and privacy salient features but also because of resilience, adaptability, fault tolerance, and other reliable characteristics.What Was The Extent Of Our Involvement?Our major role revolved around bringing the raw idea into a scalable solution. We looked over every stage of its process, including designing, development, and inclusion of the blockchain system. It also included audit, Cryptocurrency Development, QA testing of the solution, and Deployment in the stores.Phases Technology without limits- Delivered at every scale! Phase 1: We created an LMS and did a seamless audit of smart contract-powered course certificates that would be very difficult to imitate even if someone tries to over the internet. This phase includes LMS development, smart contract development, smart contract audit, QA of the solution, and POC creation.Phase 2:How Will It Benefit Your Company? It has been the most scalable solution from the very first day of its launch. It includes the process of selecting the course to the issuance of the smart contract-powered certificates, which we made in semi-real time. This solution will help you in defining the strategic product for your business."

184-"Case Study Automation Of The Android application - PrivTalk and Metz Overview Our Mooglelabs developers'-built code for the android applications, PrivTalk and Metz, for the client. But when the need to update and build a new version arose, a manual approach was needed to rebuild and redeploy it. To get over this manual approach, we worked on the automation of the process through the DevOps process of building the pipeline with tools such as Jenkins. The tools we prepared could automatically fetch the code from GitHub/-GitLab wherever the code stays. It builds it through commands and deploys the desired APK to the play store. Why Did They Need A Solution? Due to the increase in applications in the market, they needed a faster and guaranteed solution that was also cost-effective. The solution was necessary as manual build and deployment could delay and create errors. An automated solution was also necessary because of the hurdles in testing the application. Our Contribution? We crafted the automation solution. We used the tools Jenkins, Android Studio SDK, Github/Gitlab, Gradle 7.3.3, and Google play store account/ App-center account. We made the DevOps Solution work through Jenkins. We created a freestyle job in Jenkins and linked our repo to it. Our developer provides the GitLab/-GitHub Repos link with the necessary permissions. In the git poll SCM, we had fixed the amount of time when it checked with the GitHub repo whether it had some changes or not. Amping Up Tech Stack For Businesses They wanted to work on the automation of the business processes, and Mooglelabs performed it through the DevOps process of building the pipeline with tools such as Jenkins. Let us know what you want to build with Jenkins and our Mooglelabs Experts would love to discuss it. Till then, you can go through a showcase of how Mooglelabs ’ developers and engineers build, deploy, and automate great stuff with Jenkins."

185-'Case Study Agile DevOps In Practice- Perfomed Pipeline Tasks for The Charter Store Overview We worked for Maxelit, a software development firm for the project named The Charter Store. The Charter Store wanted to implement the pipeline task (CI/CD) for the DevOps part. Our Contribution Due to the emergence of a number of applications in the market, they needed a faster and guaranteed solution and majorly a cost-effective one. The solution was necessary as manual build and deployment could delay and create errors. We used DevOps to create an automated solution to test the application and deploy it automatically. What Did We Do? Pipeline Task (CI/ CD) - DevOps Organization - The Charter Store Build and Release Pipeline We created Build and Release Pipeline for the TEST environment and deployed the dotnet app in Azure App Service. Classic Pipeline Azure YAML pipeline for PRODUCTION environment. Tools Required For DevOps Pipeline For DotNet App Azure DevOps account Git to restore code from TFVC to Azure Repo NuGet Installer NuGet Restore MS Build Artifacts Restorer Azure App Service Connection Azure Portal account App Service in Azure Portal What Environments Did We Use? Test Environment – We created the

Build and release pipeline and used Windows Latest, and with the help of Nuget Version 4.4.1 package manager, we restored the code. We used MS Build to build the .net app and the Azure App Service Deploy agent to deploy code in Azure App Service. Build Pipeline Release Pipeline Production Environment - We created an Azure YAML pipeline and used Nuget and MS Build to build the code and ARM Deploy agent to deploy code in Azure App Service. YAML Pipeline Tableau And SQL Database (On – Premises): Migration To Azure Cloud In our second task, we did the migration to Azure Cloud with our Tableau and SQL database. We created the Tableau server in Azure Cloud and Migrated the SQL database to Azure Cloud. We followed it by assuring that there are no background tasks running before you start the migration (extract refreshes, workbook publishing, etc.). We created Backup files and exported them to our local machine using FileZilla. We used SQL Server Management Studio to generate the scripts and used the import/ export data method. We used Azure Blob Storage to store the backup files and exported data from On-premises to the Azure client’s account. We created SQL Server in MS Azure and imported data to the MS SQL database. How Does It Benefit Their Business? Easy UI/UX Provides an easy-to-use UI for installing and managing Visual Studio/ MS Build packages Packages Storage Provides the ability to Package and restore packages used in a project directly through the MSBuild toolchain. Reference List of Packages Most importantly, NuGet Maintains a reference list of packages used in a project and the ability to restore and update those packages from that list. Tracking references Provide the ability to track references and restore packages on demand Manage Dependencies Helps in managing Dependencies. With MS Build, it provides an XML schema for a project file that controls how the build platform processes and builds software. We deployed the code in Azure App Service to quickly build, deploy, and scale web apps and APIs on their terms. Our Mooglelabs team worked with .NET, .NET Core, Node.js, Java, Python, or PHP in containers or running on Windows or Linux, and it’s a fully managed service. '

186-"Case Study A Blockchain-Powered LMS Transforming the Education Sector Mooglelabs APP-The Solution To Learning Industry’s Fraud Instances Challenges Learning standards have got a new hold these days! But the education industry stakeholders' reactions are not aligned with the much-required transition movements. A gap has been built and is continuing to widen with issues such as data protection, outdated certification processes as well as data accessibility and archiving. There was a high need for the solution to bring in a positive technical revolution in the education sector. How Are We Winning With The Mooglelabs Solution For Blockchain Powered LMS? We have carved out the solution to learn about the industry's fraud instances and boost the transformation of the education sector. The app has been widely used in different application domains, which include energy preservation, healthcare, e-commerce, social media, etc. The solution has included analyzing and mining certain types of data that include demographics, preferences, social interactions, and much more down the line. This has brought out the best. Such kinds of datasets include sensitive information, and it is majorly focused on risk reduction techniques only. Before, none of them has been successful in ensuring crypto security or user privacy with different techniques used till now. In order to fill the gap, blockchain technology has arrived as the most promising strategy or tactic. This all has been done so that there can be privacy preservation, not just due to security and privacy salient features but also because of resilience, adaptability, fault tolerance, and other reliable characteristics. What Was The Extent Of Our Involvement? Our major role revolved around bringing the raw idea into a scalable solution. We looked over every stage of its process, including designing, development, and inclusion of the blockchain system. It also included audit, Cryptocurrency Development, QA testing of the solution, and Deployment in the stores. Phases Technology without limits- Delivered at every scale! Phase 1: We created an LMS and did a seamless audit of smart contract-powered course certificates that would be very difficult to imitate even if someone tries to over the internet. This phase includes LMS development, smart contract development, smart contract audit, QA of the solution, and POC creation. How Will It Benefit Your Company? It has been the most scalable solution from the very first day of its launch. It includes the process of selecting the course to the issuance of the smart contract-powered certificates, which we made in semi-real time. This solution will help you in defining the strategic product for your business. Case Study-Automation Of The Android application -PrivTalk and Metz Overview Our Mooglelabs developers'-built code for the android applications, PrivTalk and Metz, for the client. But when the need to update and build a new version arose, a manual approach was needed to rebuild and redeploy it. To get over this manual approach, we worked on the automation of the process through the DevOps process of building the pipeline with tools such as Jenkins. The tools we prepared could automatically fetch the code from GitHub/GitLab wherever the code stays. It builds it through commands and deploys the desired APK to the play store. Why Did They Need A

Solution? Due to the increase in applications in the market, they needed a faster and guaranteed solution that was also cost-effective. The solution was necessary as manual build and deployment could delay and create errors. An automated solution was also necessary because of the hurdles in testing the application. Our Contribution? We crafted the automation solution. We used the tools Jenkins, Android Studio SDK, Github/Gitlab, Gradle 7.3.3, and Google play store account/ App-center account. We made the DevOps Solution work through Jenkins. We created a freestyle job in Jenkins and linked our repo to it. Our developer provides the GitLab/GitHub Repos link with the necessary permissions. In the git poll SCM, we had fixed the amount of time when it checked with the GitHub repo whether it had some changes or not. In the build section, we built our repo with commands. In the post-build section, the generated apk got finally deployed to the app center or google play store. This way we did deployment to the app center. Amping Up Tech Stack For Businesses They wanted to work on the automation of the business processes, and Mooglelabs performed it through the DevOps process of building the pipeline with tools such as Jenkins. Let us know what you want to build with Jenkins and our Mooglelabs Experts would love to discuss it. Till then, you can go through a showcase of how Mooglelabs ’ developers and engineers build, deploy, and automate great stuff with Jenkins. Experience Complete Control on Your Yoga Routine Want Something Similar? About the Client Our client runs a Yoga School and wanted to take his skills to everyone that wanted to practice the ancient art for healthy living. Business Requirement The business asked for an AI Yoga trainer that could evaluate the user's body asana posture to determine if they were doing the yoga pose correctly. Preferable Outcome An accurate Yoga pose detector and assessor that offers inputs on what to change to get a more accurate pose. Additionally, offering comparison charts of users to show progress. Our Process To begin, we needed to create a system that could fetch feed from the camera. After appropriate Research and Development, we opted for the OpenCV HAAR CASCADE algorithm as the means to detect faces. Additionally, the detection system is aligned with the task of recognizing the subscriber through image analysis to enable access to the web application. Lastly, we custom-trained our model with CNN of LSTM to classify Yoga Poses. How it Works Start by turning on the web application and give access to the camera. Then, the application will start capturing the feed. Afterward, the current feed will get sent to the server where our AI model is deployed. In return, the AI model is responsible for offering feed that gives the pose category and angle of every joint. Here, it will assess all the angles of your joint, and another ML algorithm will classify whether the pose is correct or not. It will provide insights to ensure that the user can perform the activity accurately without injuries. Steps We Followed Features of The Final Product 1 Authentication With the help of a face recognition algorithm, the application only allows registered users to use the application. 2 Comparison Charts The web application stores data related to your previous activities on the app. Then, it can offer insights on improvements you are making in the exercise, giving it a more human feel while training. Tools Used Open Cv Media Pipe Lip Ml Algo Flasks Pandas Logo Challenges Problem 1 Low Bandwidth Usage Depending on the user's location and internet connection health, low bandwidth is a possibility. In such a scenario, the image capturing was inadequate, which led to poor results. Solution We optimized the algorithm to change the image resolution as per the bandwidth of the product, enabling the product to work even when working with low bandwidth. Problem 2 Limited Images We were tasked with training the model on a limited number of images, and that led to issues with results when the angles or placement of the camera changed. Solution To overcome the issue, we used one-shot learning. The Final Result By the end of the project, we created a smart AI-powered yoga trainer that can help people live healthier lives and get expert advice while they do yoga at home. The AI-powered web application uses joint angles to determine the quality of yoga poses and provides helpful insights to the users to help them perform these poses accurately and avoid injuries."

187-"Improving Customer Service Made Easy! Automated Phone Call Script Assessment. Overview The client wanted an automated system to analyze sales calls to improve sales scripts, resulting in better customer service. So, we worked on creating a system that recorded sales calls and automated the analyzing process to assess sales agents' performance and improve business operations. Compare the standard sales script with the text generated from audio speech files of the sales agent to improve the sales script and analyze the sales calls. Client A leading beauty e-commerce store that offers multiple brands. Business Requirement Text analysis tool to analyze the text generated from calls with standard calls scripts. Integration of Twilllio to access call recordings, making and receiving calls. Dashboard for visualization of analysis of calls with respect to standard calls scripts. Interface for receiving and making calls. Database to store logs, call recordings, text generated, and analysis . Project Goals To improve the sales

script. AI-assisted Automated system to analyze the sales call. To understand the performance of the sales agent. To enhance sales appointments and other business metrics. Our Contribution Stage 1 Minimum Viable Product Stage 2 Understanding The Script & Text Analysis Speech-To-Text Generation Using Open-Source Libraries And Toolbox Using Open-Source Transformer Based Models Text-To-Text Comparison Using Python Libraries (Score Based & Pattern Matching) Text Similarity Using Open-Source Transformer Based Models Deployment Of The Developed Models On The Cloud Development Of Front End Development Of API Deployment Of The Model Testing And Validation Testing And Validation Of ML Model Deliverables Webapp to receive and make calls with a Dialpad and other call options Webapp to show logs of calls and download recordings & generated texts Webapp as a dashboard to visualize the analysis of the text analysis and call analysis Database to store the scripts, & recordings of the calls integrated with the Twillio account Model for the semantic similarity between text generated and script Model for word for word match Models for Phrase-to-Phrase match Models for sentiment score and analysis Integration of ML models with the webapp Deployment on the local server Client What Does Our Final Product Do? Speech-To-Text Generation Using Twillio API Using Login Details Of The API Script And Generated Text Comparison Using Open-Source Libraries And Toolbox Using Open-Source Transformer Based Models Analysis Of The Text Generated Quantitative Analysis Of The Text Generated Qualitative Analysis Of The Tools The Synonyms Used For The Word To Word The Semantic Meanings Of The Words The Phrase-To-Phrase Similarity Sentence-Sentence Similarity Houzoo2Sentiment Analysis Semantic Matching To Make Sure That The Sales Agent Is Following The Script Script Analysis Measuring Which Script Has The Best Ability To Set Appointments Which Features Make A Good Script? Analyze And Understand The Client (Who Can Be A Prospective Buyer?) Documentation And Report GitHub Repo Live Working Application Dashboard For Analysis Project Reports Detailed Documentation Of The Project And All Of Its Parts Data The Requirements For The Project Are Standard Sales Scripts In Text Format Speech Audio Calls Of The Sales Agents Twillio API Login Details Whisper API Login Details (If Paid Version) Challenges Challenge 1 Twillio generates call recordings in real-time, so actual calls are required even for development. Solution We utilized our clients' real-time call recordings data to carry out the development process. We had to set up a system for automating data transfer every day. Challenge 2 The models can only be trained and tested on actual data, which is not available openly. Solution As call recordings of individuals are unavailable openly, we had to limit our ML training to data available through the client. Challenge 3 The standard sales scripts are not fixed and vary with business. These scripts are not available readily. Solution We had to do extensive research on standard sales scripts, apart from the one the client gave. We extracted data online on standard scripts to create the ideal sales pitch and assessed the call recordings compared to these standards. The Final Result A complete system that allows the client to utilize sales call analysis to determine the scope of improvement, along with data visualization to offer a concise and accurate assessment of recorded call analysis. "

188-"Case Study AI & ML Services –Improving User Experience Through Bespoke Ingredients Recommendations! Overview We worked on creating an ingredient recommender system for an e-commerce website that wanted to improve its user experience. They wanted to utilize Machine Learning to provide the best recommendations to every client, as per different attributes, to improve results and get repeat customers. Our Contribution A leading beauty e-commerce store that offers multiple brands wanted to provide personalized recommendations as per users' skin concerns. So, we created a custom recommender system using AI and ML that suggests the ingredients to use per the client's features, like skin type, texture, etc. What did we do? To build the recommendation system, we first selected credible sources of reviews, where we could also find information related to the reviewers' profiles, including skin type, texture, and other important information. Then, we exported the reviews in a CVS file and ran a sentiment analysis using Natural Language Processing and Natural Language ToolKit. It showed us whether the overall sentiments were positive or negative. Also, the upvotes and downvotes on the product helped us determine how strong the sentiments were among the general public. We also extracted the list of ingredients for each product, combined with other data, to determine the components worked best for specific skin types and textures with the help of machine learning. To find relevant information related to each ingredient found in the products, we relied on scientific websites with high credibility to fetch data. Tools Used To Create The Machine Learning Natural Language Processing Data Natural Language Toolkit Our Process After collecting all the data in CVS files, we created numerous segregations to extract insights from the data and created the perfect database for machine learning. Now, depending upon the user's input, the machine can offer recommendations of ingredients identified and categorized to yield results for their skin and texture. The resultant

product was deployed on the client's website as a tool that customers could use to avail custom recommendations per their needs. About the Business Our client offers skincare products through an eCommerce site on the internet and physical stores. They have a range of products with various ingredients that are marketed for their potent ingredients. Requirements With the lockdown underway, more users were shopping online, and they wanted a system that could offer bespoke recommendations like their experts in the physical stores while limiting cost. What Problem Arose & Our Solutions? Problem 1 Finding the correct sites Solution Any machine learning system is as good as its raw data. So, we only took data from the most credible sights. Problem 2 Lack of Insights Solution While the client’s websites and a few others did offer essential data, there was a lack of insights. So, we had to create several segregations, quantify people’s perspectives using NLP and draw appropriate insights. Problem 3 How to Extract User’s Requirements Solution To understand users’ requirements, we have created a survey that asks relevant questions and only offers recommendations. The Results A highly scalable skincare recommendation system that takes input from users to provide ingredient suggestions. It can also be applied to several other industries with only a few tweaks in data. Creating the tool has helped the organization make bespoke recommendations, ensuring better results, and getting more repeat customers. Deploy Facial Recognition to Automate Accurate Attendance Markings The Problem At MoogleLabs, we believe in breaking boundaries and creating products that solve real-world issues. And one big problem that almost all corporations face is keeping a track record of employees' attendance. It is an overhead task that can include several human errors. Moreover, the pandemic rendered some of the most accepted methods of automated attendance useless, especially fingerprint scanning. So, businesses needed a new and improved way of marking attendance automatically while ensuring zero contact with a machine. Automating the process of attendance marking can save companies significant money, reduce employees' effort, and help companies improve productivity. So, we started working on an attendance system that does not require more effort than standing in front of a camera and created the ultimate Facial Recognition system. It also works when the employees pass the camera at a legible angle. Additionally, it is possible to train the model to accurately mark attendance or in-and-out time of employees during the office hours. As facial recognition relies heavily on machine learning, we first focused on collecting data. It included collecting image from the employees of the company that works as the base for machine learning. Then, we applied a machine learning algorithm to the video feed to detect & recognize the face. The system is designed to detect the video feed and compare it to images available in the database, which also contains every employee’s details. If the computer finds a match in the database, it will mark the attendance and save time. Capture Video Feed -> Apply Machine Learning Algorithm -> Teach System to compare video feed with database to mark attendance with time. How To Use The technology uses the Internet of Things (Video Camera) and Machine Learning algorithm to automate the attendance system. After the initial setup by the experts, there are provisions for the users to add and remove employee details on the dashboard. To use daily, run the system, keep the video recorder on, and you are good to go. Features of The Final Product 1 Office In-and-Out Time tracking and record-keeping. 2 Option to keep tracking of total out-time during the working hours. 3 Accurate data-keeping of all attendees. 4 Added flexibility for admins, allowing manual attendance. Tools Used/ Tech Stack Flasks Python Open Networks Sqls Plot Pandas Nump Problems We Faced & Our Solutions Problem 1: Limited Images At the beginning of the process, we had limited images available for training the machine learning system. Our Solution We gathered all the employee images from the organization. However, it only allowed for face detection when the user was in front of the camera. In the case of a side view, the system had issues with detection for the individual. Hence, we used a one-shot learning to rectify the problem. Problem 2: Weak internet connection hindering the process of image recognition and attendance Initially, the attendance system worked fine on a stable and strong internet connection, but during periods of weak internet, it could not take the roll call. Our Solution We created a system where the resolution of the video feed will change as per the internet connection strength to enable quick attendance check even on poor internet connection. Problem 3: Compatibility Issues with IP Cameras The application needed to be compatible with a range of IP cameras for maximum effectiveness and scalability. Our Solution The system we created needed to work with Internet Protocol Cameras for maximum utility for organizations. So, we created a code to make the system compatible with the maximum IP Cameras currently used in the company's premises. Final Result We Created An Application That Could Mark The Attendance Of All Employees. Use Cases Facial Recognition Systems Have A Range Of Use Cases In The World Of IT And Several Other Fields. Apart From Using The Application For Marking Attendance, Facial Recognition For Restricted Area Access, Voting, Or Student Attendance Is Also Possible. If You, Too, Want To Leverage The Power Of Facial Attendance

To Improve Your Business Operations, Get In Touch With Us Today. We Can Create A Custom Product Using Machine Learning, Depending On Your Requirements And Final Application. You Can Deploy The Facial Recognition System For Attendance Marking For Your Organization. "

189-"Case Study Created Production-Grade Scalable Deployments With the use of GitLab, Amazon Web Services and Terraform (Infrastructure as Code). How Was The Idea Born? Powered by Mooglelabs team made DevOps deployment automation happen with the AWS, Terraform, and Docker for the best infrastructure introduced to the businesses processes. Project Calls For The Much-Improved Business Metadata Earlier, companies were trying to save time, cost, and simpler infrastructure of their business workflows. With the help of the deployment of AWS within our solution, we've cut down the time that was needed to build a new application structure by around 99%. Our Mooglelabs team considers the building blocks to bring out the actual intent as we'd drive instantaneous virtual infrastructure with the AWS. Process In the Sparkseeker Infrastructure we made three environments To set up an infrastructure in AWS account using terraform we included: Service A service in ECS allows to run and maintain a specified number of instances of a task definition. Task An instance of a task definition running on a container instance. The key difference is that task definitions Container A Docker container that is executed as part of a task. Security Groups Created a security group to allow port 80,443 on inbound and created a security group FIFO queues High Throughput, Exactly-Once Processing, and First-In-First-Out Delivery AWS CodeBuild For the build, we needed Docker. We used buildspec.yaml file-for different environments with Dockerfile. ECR Amazon Elastic Container Registry (Amazon ECR) is a fully managed Docker container registry ECS Cluster: The cluster is a skeleton structure around which we build and operate workloads. React-Native Build Deployment In Sparkseeker Using Terraform Overview There are two react native CI/CD pipelines for two different environments: dev environment and stage environment. We use GitLab Repositories for the code. The two pipelines named are React_native_dev React_native_stage Requirements AWS Account Terraform Process Script is made using terraform templates consists of S3 bucket, iam roles and policies, codebuild, codepipeline and buildspec.yaml file. How Our Efforts Took Centerstage? We created production Grade scalable deployments with GitLab, EC2, ALB, ECS, ECR, VPC, S3, and Infrastructure as Code (IaC). We set up professional Administered development workflows based on GitLab Flow to automate the processes and speed up the deployments. We made terraform scripts Scripts are created using terraform templates for whole infrastructure consists of iam roles and policies, S3 bucket, codebuild, codepipeline and buildspec.yaml file. We defined Infrastructure as Code using Terraform to smoothly generate and destroy the environment. We well-managed and An AWS account in accordance with best practices to combat the risks. We deployed infrastructure With Terraform to match the configuration requirement. We designed an Architecture that is scalable, secure, resilient, and facilitates zero-downtime deployments. We used Multiple Environment-based infrastructure and use AWS ECS for deployment. How Mooglelabs Will Help Your Business? This solution will help automate your software release process while allowing you to rapidly release new features. Fully Automated Assessment - Solution for Students & Potential Employees Want to leverage technology to ease your assessment process? The Challenge We Wanted to Address Learning standards have got a new hold these days! But the education industry stakeholders' reactions are not aligned with the much-required transition movements. A gap has been built and is continuing to widen with issues such as data protection, outdated certification processes as well as data accessibility and archiving. There was a high need for the solution to bring in a positive technical revolution in the education sector. Our Product Idea We decided to work on a question bank, coupled with the AI and ML technology that could be trained to assess the various factors that generally the interviewer observes while meeting the interviewee. The questions bank we create needed to have both valid questions along with relevant answers. Moreover, we wanted the final tool to assess the interviewee using natural language processing. Steps We Followed The Ultimate Features of the Product In the final tool, you can pick and upload relevant articles. The software will create relevant questions out to the content. Then, ask these questions to the candidate or viewers. Then, the tool will take input of interviewee voice and judge the answers in semantic sense using Natural Language Processing. Moreover, it will also assess the quiver in voice and overall confidence of the candidate. The AI-based software also takes video feed to check body language and facial expressions during the interview and uses it to create an assessment of the user’s emotional state during the interview. Our Solution To create the perfect assessment software using AI and ml technology we created a work flow. In this we first focused on voice, threshold value for selection then database work and stamps and finally emotional detection. Running similarity check through natural language processing For this we used cosine similarity with ##########WORD TO VECTOR

APPROACH to check (################SEMANTIC SIMILARITY BETWEEN ACCURATE ANSWER AND USER'S ANSWER) average find function (##########AVERAGE FUNCTION after SIMILARITY PERCENTAGE FRO assigning score card on the basis of answer). In this process the use of natural language processing helps the computer determine if the content of interviewee is relevant to the question on the basis of semantics. It does not need word to word response. Instead, it will check the users' answers in comparison with the content to determine it is right and to what extent. There is a threshold value in place and it the interviewee answer matches or exceeds that percentage, then it is good to go. Voice bot In this we used function and classes (#######OOP's concept) along with Google (#######OOP's concept) libraries for text to voice and voice to text. After this, we integrated voice bot into the front end. Database and Timestamps For average connect with MySQL for storing conversations and time stamps Emotion detection We identified 9 major emotions data sets and started with preprocessing labeling and sitting it into a pre-trained model using OpenCV for detecting my emotions in live feed. Finally We Integrated All Three And Started Live-Testing After Front-End Deployment. Tools Used <Python Python Python Our Biggest Challenge Finding the right pre-trained model for emotion detection In the case of both emotions and voice sentiment detection, finding the right model was close to impossible due to the lack of unbiased models. Solution: to overcome the issue, we worked on a custom model that could identify emotions and voice sentiments to assess the interviewee's state of mind while giving the answers. The Final Result At the end of the project, we created a software that fully automated the process of taking interviews, from asking questions, to checking answers and running a complete sentiment analysis based on live feed and voice modulation to determine the level of confidence in the candidate. It can work well for both offices and educational institutions. Automate The Interview Process With Our Latest Tool "

190-"Creating The Perfect Data Collection & Exploration Questionnaire to Test Expertise About the Client We were contacted by a Content Management Services Giant, who works with several big EdTech companies like Coursera, Udemy, etc., to create the ultimate course, along with the final assessment test for Data Science experts. Business Requirement Our client needed course and assessment content to determine the overall capabilities and expertise of the working professionals in the field of data collection and exploration. Preferable Outcome A complete learning course blueprint, corresponding one hundred well-written Questions, and TLOs that check not just the memory but also the ability to apply, analyze, and create per Bloom's Taxonomy through accumulated knowledge. Overview of the Project Our client is a content management services giant who offers services to companies that provide online courses. In this requirement, they wanted to create complete course content along with the final questionnaire to the help of subject matter experts in data collection and exploration. As the test will primarily focus on applicability skills, only 20 out of the 100 questions test the test taker's memory. The rest will focus on the candidate's ability to apply, analyze, and create using their knowledge. Course Work & Question Framing Then, we first worked on creating course content for every topic. Afterward, the focus shifted to creating 10-question batches. These were either objective or multiple-choice questions that were sent for review. In the case of MCQs, every potential answer was accompanied by appropriate reasoning. We also accessed Bloom's taxonomy Level of each question to get a clear picture of the statement's applicability. Afterward, every topic and every 10-batch set were sent for review with external collaborators to determine their validity. During this process, we also received questions and course work from other collaborators that we assessed thoroughly. The process aimed to weed out irrelevant questions and make appropriate suggestions on relevant areas that could improve with a few changes. Create a Blueprint To begin the process, we created a course blueprint with topics and questions per topic based on data collection and exploration. It was the base of the course that would determine the questions within the course. Delivery of The Complete Course & Final 100-questions Test After completing the project, we sent the finalized course and questionnaire to the client for re-assessment before finalizing it. Our Contribution In the project, we were responsible for creating the course content and questionnaire from scratch. It meant that we started on the project by creating a blueprint, making a workflow, and then started the content work. During the process, we were also responsible for offering suggestions to other collaborators working on the same project and drafting relevant questions. Steps We Followed Challenges Problem 1 Need for an Extensive Literature Survey to avoid plagiarism The biggest problem while drafting the course and questionnaire was creating a unique question set that consisted of queries that analyzed the candidate's capabilities while ensuring that there was no unintended plagiarism. Solution To ensure completely one-of-a-kind content and questions on the paper, the experts at MoogleLabs did an extensive literature survey of available material. Problem 2 The drafting of Analyze and Apply questions One of the significant challenges of the

project included creating questions that would assess the candidate's ability to analyze and apply the acquired knowledge to create real-world solutions. Solution To create engaging and insightful questions, we studied the adjoining concepts to develop problems that required varied information and a grasp on how to implement the data to gain desired results. The Final Result At the end of the project, we successfully created a valid, succinct, reliable, and interesting 100-questions test along with complete course content that could test the experts in the field. The questionnaire had 20 questions for testing memories, and the remaining 80 questions focused on assessing the user's analysis and application capabilities. Additionally, we collaborated with an external team, taking and giving suggestions on creating better questions for appropriate assessment. Top-Notch Recommendation System Using Machine Learning About the client Our client is an educational website owner who runs a business named trans neuron. He offers skills development courses to working professionals and students. Our Solution Business Requirement The business needed us to create a course and job recommendation system for the users. It should use natural language processing to understand users' needs and find the most relevant results. Preferable Outcome To create an ML model that offers relevant suggestions based on students' and working professionals' requirements for courses and jobs, respectively. Steps We Followed Overview of the Project Our client is a content management services giant who offers services to companies that provide online courses. In this requirement, they wanted to create complete course content along with the final questionnaire to the help of subject matter experts in data collection and exploration. As the test will primarily focus on applicability skills, only 20 out of the 100 questions test the test taker's memory. The rest will focus on the candidate's ability to apply, analyze, and create using their knowledge. Our Approach Step 1: Creating the blueprint of the project Firstly, we started with creating the project's workflow. In this process, we determined the best technology to use and the step by step of the entire process to ensure appropriate results. Step 2: Data collection The first step of starting any ML model is collecting relevant data. Here, we started collecting client data that consisted of different variables. Step 3: Creating the machine learning model Then, we developed the recommendation model. In this process, we worked on data preprocessing with different variables to find vectors. Afterward, we used natural language processing (NLP) to convert the text into vectors and these vertors are used to check the similarity between the course and client requirements. In the same manner, we also created the job recommendation system. Tools used in the process <Python Python Python Python Our Contribution In this project, we were hired to create the ultimate recommendation system for the clients using machine learning technology coupled with natural language processing. To achieve the goal, we first worked on determining the various needs of the ideal users. Then we started creating solutions, from accumulating data to making the final system continuously improve as it receives more data. The challenges faced during the process Problem 1 Scattered Data The biggest challenge of this project was the amount of scattered data available. Initially, we had to collect various data from the client's websites and other available resources. The data needed to be extended to yield relevant results. But, at the same time handling such a massive amount of data was a challenge on its own. Solution To create the perfect model, which started with accumulating all the relevant data available online and through the client. Afterward, we worked on handling and preprocessing the data appropriately to get the best model. Problem 2 Creating a Higher Accuracy Model In the initial stages, the model did not offer higher accuracy in the appropriate course and job recommendations. Solution To attain higher recommendation model accuracy, we deployed multiple models and then defined data over time to yield better results The Final Result We created the optimized recommendation engine for the business’s client to help them find the most reliable courses and job opportunities. "

191-'Here is How We Helped Other Businesses Automate!'

192-"The Challenge We Wanted to Address Learning standards have got a new hold these days! But the education industry stakeholders' reactions are not aligned with the much-required transition movements. A gap has been built and is continuing to widen with issues such as data protection, outdated certification processes as well as data accessibility and archiving. There was a high need for the solution to bring in a positive technical revolution in the education sector.Our Product Idea We decided to work on a question bank, coupled with the AI and ML technology that could be trained to assess the various factors that generally the interviewer observes while meeting the interviewee.The questions bank we create needed to have both valid questions along with relevant answers. Moreover, we wanted the final tool to assess the interviewee using natural language processing.Steps We Followed The Ultimate Features of the Product In the final tool, you can pick and upload relevant articles. The software will create relevant

questions out to the content. Then, ask these questions to the candidate or viewers.Then, the tool will take input of interviewee voice and judge the answers in semantic sense using Natural Language Processing. Moreover, it will also assess the quiver in voice and overall confidence of the candidate.The AI-based software also takes video feed to check body language and facial expressions during the interview and uses it to create an assessment of the user’s emotional state during the interview.To create the perfect assessment software using AI and ml technology we created a work flow. In this we first focused on voice, threshold value for selection then database work and stamps and finally emotional detection.Running similarity check through natural language processing For this we used cosine similarity with WORD TO VECTOR APPROACH to check (SEMANTIC SIMILARITY BETWEEN ACCURATE ANSWER AND USER’S ANSWER) average find function (AVERAGE FUNCTION after SIMILARITY PERCENTAGE FRO assigning score card on the basis of answer). In this process the use of natural language processing helps the computer determine if the content of interviewee is relevant to the question on the basis of semantics. It does not need word to word response. Instead, it will check the users’ answers in comparison with the content to determine it is right and to what extent. There is a threshold value in place and it the interviewee answer matches or exceeds that percentage, then it is good to go.In this we used function and classes (OOP’s concept) along with Google (OOP’s concept) libraries for text to voice and voice to text. After this, we integrated voice bot into the front end.Database and Timestamps For average connect with MySQL for storing conversations and time stamps Emotion detection. We identified 9 major emotions data sets and started with preprocessing labeling and sitting it into a pre-trained model using OpenCV for detecting my emotions in live feed.Finally We Integrated All Three And Started Live-Testing After Front-End Deployment.Tools Used Python NLP APIs Our Biggest ChallengeFinding the right pre-trained model for emotion detection.In the case of both emotions and voice sentiment detection, finding the right model was close to impossible due to the lack of unbiased models.Solution: to overcome the issue, we worked on a custom model that could identify emotions and voice sentiments to assess the interviewee’s state of mind while giving the answers.The Final Result\nAt the end of the project, we created a software that fully automated the process of taking interviews, from asking questions, to checking answers and running a complete sentiment analysis based on live feed and voice modulation to determine the level of confidence in the candidate.It can work well for both offices and educational institutions."

193-"Overview We worked on creating an ingredient recommender system for an e-commerce website that wanted to improve its user experience. They wanted to utilize Machine Learning to provide the best recommendations to every client, as per different attributes, to improve results and get repeat customers. Our Contribution A leading beauty e-commerce store that offers multiple brands wanted to provide personalized recommendations as per users' skin concerns. So, we created a custom recommender system using AI and ML that suggests the ingredients to use per the client's features, like skin type, texture, etc. What did we do? To build the recommendation system, we first selected credible sources of reviews, where we could also find information related to the reviewers' profiles, including skin type, texture, and other important information. Then, we exported the reviews in a CVS file and ran a sentiment analysis using Natural Language Processing and Natural Language ToolKit. It showed us whether the overall sentiments were positive or negative. Also, the upvotes and downvotes on the product helped us determine how strong the sentiments were among the general public. We also extracted the list of ingredients for each product, combined with other data, to determine the components worked best for specific skin types and textures with the help of machine learning. To find relevant information related to each ingredient found in the products, we relied on scientific websites with high credibility to fetch data. Tools Used To Create The Machine Learning Data Natural Language Toolkit Our Process After collecting all the data in CVS files, we created numerous segregations to extract insights from the data and created the perfect database for machine learning. Now, depending upon the user's input, the machine can offer recommendations of ingredients identified and categorized to yield results for their skin and texture. The resultant product was deployed on the client's website as a tool that customers could use to avail custom recommendations per their needs. About the Business Our client offers skincare products through an eCommerce site on the internet and physical stores. They have a range of products with various ingredients that are marketed for their potent ingredients. Requirements With the lockdown underway, more users were shopping online, and they wanted a system that could offer bespoke recommendations like their experts in the physical stores while limiting cost. What Problem Arose & Our Solutions? Amping Up Tech Stack For Businesses Problem 1 Finding the correct sites Solution Any machine learning system is as good as its raw data. So, we only took data from the most credible

sights. Problem 2 Lack of Insights Solution While the client’s websites and a few others did offer essential data, there was a lack of insights. So, we had to create several segregations, quantify people’s perspectives using NLP and draw appropriate insights. Problem 3 How to Extract User’s Requirements Solution To understand users’ requirements, we have created a survey that asks relevant questions and only offers recommendations. Amping Up Tech Stack For Businesses The Results A highly scalable skincare recommendation system that takes input from users to provide ingredient suggestions. It can also be applied to several other industries with only a few tweaks in data. Creating the tool has helped the organization make bespoke recommendations, ensuring better results, and getting more repeat customers."

194-'Top 10 Metaverse Development Companies in 2023 Tech Talk with Felix Cao Metaverse Games: Future of Virtual Reality Gaming NFT Development Services – Steps to Create an NFT Marketplace on Solana Blockchain Be Prepared to Discover the Unmatched Potential of the All New Chatgpt-4 Cloud Native DevOps Services with Kubernetes – Build, Deploy, & Scale Your Apps in Cloud'

195-'https://www.mooglelabs.com/our-portfolio'