| Design and development of hybrid learning models for cloud security attacks |
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With the increasing threat of global computer network hacking, there is a need for more advanced intrusion detection and prevention methods. New technologies such as fog computing, cloud computing and the Internet of Things have dramatically increased the possibilities of cyber attacks and other cyber risks. These attacks can compromise computer network infrastructure, online services and social media platforms, resulting in financial and reputational losses.so here Intrusion detection systems (IDS) are detected using machine learning techniques.

| Design and development of Segmenting bio degradable and non - biodegradable waste in the airport system |
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Waste management is a global challenge caused by rapid urbanization, population growth and the environmental need to reduce the impact of waste on ecosystems and human health. Good waste sorting is an important part of sustainable waste management as it encourages recycling and disposal and reduces landfill and environmental footprint. Biodegradable and non-biodegradable waste are two broad categories with different methods of disposal and recycling. Biodegradable waste contains organic materials that can be processed through composting and anaerobic digestion to produce useful products such as fertilizers and biogas, while non-biodegradable waste such as plastic, glass and metals may require recycling or proper disposal. Traditional waste sorting is done manually; This is time-consuming, labor-intensive and error-prone, making work even less efficient. Also, due to the incompatibility of the books, it is very difficult to transfer repeated editions. To solve these problems, there is a growing interest in the development of automatic waste separation systems that can increase the efficiency and accuracy of the waste management process with the help of machine learning techniques.

| Design of chaotic system for private preserving healthcare data |
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Healthcare data privacy is a critical concern in the era of digitized medical records. Protecting sensitive patient information while enabling meaningful analysis is a delicate balance. In this project, we propose a novel system leveraging chaotic dynamics for private-preserving healthcare data.

Our approach employs chaos-based encryption and artificial intelligence techniques to transform healthcare data into a cryptic and unpredictable state. Chaotic systems introduce inherent unpredictability, enhancing security against traditional encryption attacks. The unique advantage lies in the system's ability to generate a complex key space, making it challenging for unauthorized entities to decipher or infer sensitive health information.

We design and implement a chaotic system that seamlessly integrates with healthcare data architectures, ensuring both privacy and data utility. The chaotic encryption process is reversible only with the appropriate cryptographic key, granting authorized users exclusive access to deciphered information.

To validate the efficacy of our system, we conduct extensive experiments on healthcare datasets, evaluating privacy preservation against common attacks and assessing the system's impact on data analytics. Our results demonstrate that the proposed chaotic system effectively safeguards healthcare data while maintaining data utility for authorized analysis.

| Design of cognitive intrusion prediction in metaverse environment |
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The emerging challenge of cognitive intrusions within the metaverse, where users engage in complex virtual experiences. Unlike traditional security paradigms, cognitive intrusions involve subtle manipulations of users' perceptions, interactions, and decision-making processes, making them challenging to detect using conventional methods.

This project introduces a novel approach to predict cognitive intrusions in the metaverse environment by leveraging advanced machine learning techniques. By analyzing user interactions, communication patterns, and virtual behavior, our model aims to preemptively detect and categorize potential intrusions before they compromise the metaverse experience

| Calamity detection using bio inspired using hyper spectral images |
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This project explores, the frequency and intensity of natural calamities have surged, posing significant threats to human lives and infrastructure. Early detection and rapid response are crucial for mitigating the impact of such calamities. Hyper-spectral imaging, with its ability to capture detailed spectral information across a wide range of wavelengths, offers a promising avenue for enhanced disaster detection. In this project, we propose a novel approach that integrates bio-inspired algorithms with machine learning techniques to improve the accuracy and efficiency of calamity detection using hyper-spectral images.

| Image capturing system using hyper combined learning models |
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This project aims to advance the state-of-the-art in image capturing systems by harnessing the collective power of hyper-combined learning models, thereby enabling more efficient, accurate, and intelligent image processing and interpretation capabilities. In the realm of image capturing systems, the integration of machine learning algorithms has revolutionized image processing, analysis, and understanding. With the advent of hyper-combined learning models, which fuse multiple machine learning techniques synergistically, the potential for enhanced image processing capabilities has grown exponentially.

| Intelligent feedback system using facial recognition system |
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This project introduces an intelligent feedback system that capitalizes on facial recognition technology, coupled with diverse machine learning (ML) algorithms, to provide insightful feedback in scenarios where emotions are mixed. Emotions play a crucial role in human communication and interaction, and deciphering these emotions accurately can enhance the effectiveness of feedback mechanisms. However, in real-world settings, emotions are often complex, with individuals exhibiting mixed emotional states. Our system addresses this challenge by leveraging a mixed emotion dataset, containing instances where multiple emotions are expressed simultaneously, to train and refine our models.

| Ensembled models for calculating the purity of dairy products |
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In the project of ensuring the purity and quality of dairy products is paramount for consumer safety and satisfaction. Traditional methods of assessing purity often involve time-consuming and labor-intensive processes, leading to inefficiencies in the dairy industry. This project proposes a novel approach utilizing ensemble models and diverse machine learning (ML) algorithms to accurately and efficiently calculate the purity of dairy products. By automating and streamlining the process of evaluating dairy product purity, our system has the potential to revolutionize quality control practices in the dairy industry, leading to improved product integrity, consumer trust, and overall efficiency.

| Multi modal learning models for predicting influence nodes in social network |
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The identification of influential nodes within social networks is a crucial task with broad applications, including viral marketing, opinion propagation, and network analysis. In this study, we present a novel approach that enhances the precision and dependability of influence node prediction by using the potential of multiple model learning. A single prediction model is frequently used in traditional methods, which may not be able to sufficiently capture the variety of variables seen in social network data. Conversely, our multi-model framework combines different algorithms in machine learning classifiers.Our goal is to improve impact node detection performance by combining predictions from several models, which should overcome the drawbacks of using individual approaches alone. Our technique is validated by tests conducted on real-world social network datasets. By integrating predictions from diverse models, we aim to mitigate the limitations inherent in individual techniques and achieve superior performance in influence node detection

| Predictive preserving learning model for diabetic dataset |
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In order to predict the course of the disease and provide individualized treatment plans, diabetes management requires precise prediction models. In this study, we present a unique predictive preserving learning model with diabetes datasets. Conventional prediction models frequently prioritize high accuracy over maintaining interpretability and clinical practice relevance. Our approach seeks to bridge this gap by incorporating mechanisms to preserve clinically meaningful features while optimizing predictive performance. With the goal of preserving interpretability, our model makes use of sophisticated machine learning techniques such as feature selection, classifiers to find pertinent predictors of diabetic outcomes. Thus the suggested model is capable of precisely forecasting the course of the disease and identifying risk variables that are clinically significant by validating it on a large dataset of diabetic patients. Our results highlight the potential of predictive preserving learning models to enhance the interpretability and utility of predictive models in diabetic care, facilitating more informed clinical decision-making and personalized patient management strategies.

| Human activity detection using learning modal for the support of elderly care people |
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Detecting human activity is essential for assisting with the care of the elderly since it allows for ongoing observation and prompt action in the event of emergencies or worsening health. In this project , we provide a learning model specifically designed for precise human activity detection in the context of elder care. Our suggested model uses multimodal sensor data to learn intricate activity patterns by utilizing machine learning architectures . Our methodology seeks to increase the precision and resilience of activity detection while reducing the amount of data from several sensors, including video cameras, wearables, and environmental sensors. We evaluate the performance of the proposed model using real-world datasets collected from elderly care facilities, demonstrating its effectiveness in accurately recognizing a wide range of activities relevant to daily living. The results suggest that our approach holds promise for enhancing the quality of care for elderly individuals by enabling proactive monitoring and timely assistance, thereby promoting independent living and overall well-being.

| Robotic Activity detection using vector learning models |
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Our project aims to demonstrate ,the integration of robotics into various domains has led to advancements in automation and efficiency, but effective human-robot interaction remains a challenge. This project presents a novel approach to robotic activity detection utilizing vector learning models with diverse machine learning (ML) algorithms. By accurately recognizing and understanding human activities, our system can enhance the autonomy and adaptability of robots in diverse settings, ranging from manufacturing and logistics to healthcare.

| Chronic Kidney Detection using Different Learning models |
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This project aims to the Chronic kidney disease (CKD) is a prevalent and potentially life-threatening condition that affects millions of individuals worldwide. Early detection and accurate diagnosis are crucial for effective management and intervention to prevent disease progression. This project aims to develop a robust and reliable system for CKD detection using a variety of machine learning (ML) algorithms in identifying patterns and markers indicative of CKD from patient data.

| Heart disease prediction using hybrid learning for multimodal ECG dataset |
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Heart disease remains a leading cause of mortality worldwide, emphasizing the importance of accurate and timely diagnosis. This project proposes a novel approach for heart disease prediction by leveraging hybrid learning techniques applied to multimodal electrocardiogram (ECG) datasets. By integrating information from multiple ECG modalities, we aim to enhance the accuracy and robustness of predictive models, enabling more effective early detection and intervention. The primary objective of our research is to develop a comprehensive framework for heart disease prediction that leverages the complementary strengths of various machine learning (ML) algorithms and modalities of ECG data.

| Plant disease identification from the drone captured images |
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Plant diseases pose a significant threat to agricultural productivity and food security worldwide. Timely detection and accurate diagnosis of these diseases are essential for effective disease management and crop protection. This project presents an innovative approach to plant disease identification utilizing drone-captured images and a variety of machine learning (ML) algorithms. Through extensive experimentation and validation, our project aims to demonstrate the efficacy and practical utility of using drone-captured images for automated plant disease identification. By harnessing the capabilities of ML algorithms, we strive to provide farmers and agricultural stakeholders with a cost-effective and efficient tool for early disease detection.