

Category	Project Title	Description	Technologies
1	DeepRelation	Finding blood relationships using face images can be achieved through deep learning techniques. There are several publicly available datasets, such as Family In the Wild, UTKFace, VGGFace2, and LabelFace, which contain large amounts of face images and their corresponding family relationships. These datasets can be used to train deep learning models to recognize patterns in facial features and predict the relationship between two individuals. Despite the challenges posed by the variability in facial features and the limited training data, the use of advanced techniques such as transfer learning and data augmentation can improve the model's performance.	MERN, Deep learning
2	Cyber Risk Assessment Framework Based on HTMA	Assesment of the cyber risk with the help of HTMA methods by applying the probability functions. Finally sampling the corresponding values with the required impact factor value. The cyber security risk is used to describe the risks relate to the loss of confidentiality, integrity, or availability of information, data, or information (or control) systems and reflect the potential adverse impacts to organizational operations (i.e., mission, functions, image, or reputation) and assets, individuals, other organizations	MERN, Python
3	ML based Zero Day attack Detection	Zero day or a day zero attack is the term used to describe the threat of an unknown security vulnerability in a computer software or application for which either the patch has not been released or the application developers were unaware of or did not have sufficient time to address. Zero-day attacks are not known until they are discovered, the zero-day attacks are wide spread and are one of the major threats to computer security, in this project we develop a Machine Learning based Zero-Day attack detection system using novel zero-day attacks.	MERN, ML
4	BLOCKCHAIN BASED PATCH MANAGEMENT SYSTEM (BPMS)	Statement of Problem: Presently the procurement procedure of the Indian Army is based on the Defence Acquisition Procedure 2020 in which all actions are carried out manually like issuing of Request for Proposal (RFP), submission of bid, evaluation of technical bid, compilation of trial reports and drafting of contract document.	MERN, Solidity, Ethereum
5	BLOCKCHAIN NETWORK TECHNOLOGY IN SUPPLY CHAIN MANAGEMENT	Statement of Problem: Presently Indian Army personnel have the provision to file complaints against their grievances. These complaints are filed by an individual manually and then forwarded to the concerned officer by post for their comments/ observations. These complaints move from individual person to various Headquarters/ echelons of Indian Army till Army Headquarters in a manual form leading to considerable time in processing of compla+D2ints and also leads to wastage of time. At the same time, the concerned person does not know the status of the complaint while it is being processed through various Headquarters. There is a need to process these complaints digitally in a secure manner. Blockchain technology can be exploited for digital processing of complaints in a secure manner using the existing communication network of Indian Army.	MERN, Solidity, Ethereum
6	Improved Breast Cancer Diagnosis and Treatment Planning through AI-based IHC Marker Grading	Our proposed web-based AI grading system for breast cancer IHC markers aims to improve the accuracy and efficiency of breast cancer diagnosis and treatment planning. This system uses deep learning algorithms to automatically grade breast cancer tissue samples based on the expression of IHC markers. The system is divided into six modules, including data collection and preprocessing, model development, model optimization, web-based application development, deployment and testing, and deployment and evaluation. The web-based application can be easily accessed by healthcare professionals and researchers, providing a user-friendly interface for grading breast cancer tissue samples. This system has the potential to reduce the workload of pathologists, minimize inter-observer variability, and provide a fast, accurate, and objective grading of IHC markers. The proposed technology can have a significant impact on breast cancer diagnosis and treatment planning, leading to better patient outcomes and improved healthcare efficiency.	MERN, Deep Learning
7	MindMate / MindCare AI	The main goal of an AI mental health chatbot is to provide users with a convenient and accessible way to receive mental health support. This can include providing information and resources and even conducting therapy sessions. Mental health chatbots can be especially beneficial for individuals who may not have access to traditional forms of therapy, such as those living in rural areas or those who cannot afford it. These chatbots can be integrated into various platforms, such as websites, mobile apps, and messaging services. Model will use OpenAI to understand user input and generate appropriate responses.	MERN, OpenAI
8	Deep Learning Model for Predicting Adverse Events	This project aims to build a machine learning model to identify patterns and trends in adverse events following vaccination using the CDC Vaccine Adverse Event Reporting System (VAERS) dataset. The model will be used to predict adverse events and to identify risk factors for adverse events, such as age, gender, vaccine type, and symptoms. Sensitivity analysis will be used to evaluate the robustness of the model to changes in input parameters and assumptions. The results of this project have the potential to improve vaccine safety and to inform public health policies and practices.	MERN, Deep Learning