

A project report on

SKIN CANCER DETECTION USING CNN

Submitted in partial fulfillment of the requirements for award of the degree of

BACHELOR OF TECHNOLOGY

In

COMPUTER SCIENCE ENGINEERING

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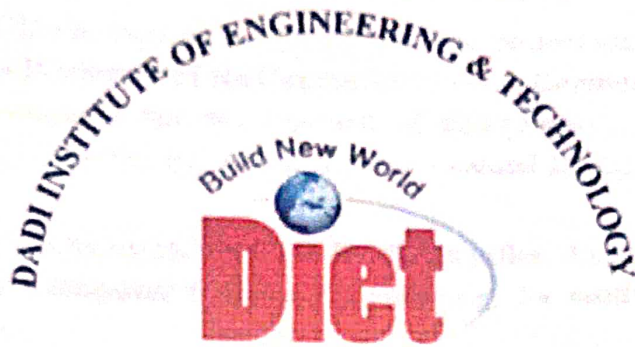
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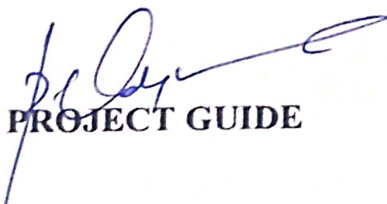
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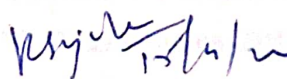


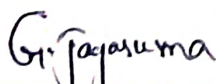
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CERTIFICATE

This is to certify that the project report entitled "Skin Cancer detection Using CNN" submitted by V. Phaneendra (20U41A0526), k.Dileep(20U41A0551), S.Nazeer(20U41A0598), Tushar Hirawat (20U41A0594),. In partial fulfilment of the requirements for award of the Degree of Bachelor of Technology in Department of Computer Science & Engineering, from Dadi Institute of Engineering & Technology(A), Anakapalle affiliated to JNTUGV, accredited by NAAC with 'A' grade is a record of bonafide work carried out by them under my guidance and supervision.


PROJECT GUIDE


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EXTERNAL EXAMINER

ABSTRACT

Skin cancer is a serious condition where abnormal cells grow uncontrollably in the skin. It is often caused by excessive exposure to ultraviolet (UV) radiation from the sun. Early detection and timely treatment are crucial for better outcomes. If you have concerns about skin cancer, it's important to consult a medical professional for proper evaluation and advice. Skin is one of the main parts of our body. It is a layer that covers our whole body. Since there are no obvious symptoms during the early stage of skin disease, patients often fail to notice the disease. So, our main aim is "Early detection of skin cancer which helps patients to have timely treatment". Earlier also many studies were made but they were unable to process less resolution images. In this study, we are trying to propose a deep learning terminology for diagnosing skin cancer and overcome those drawbacks. Here the deep learning method convolution neural network (CNN) was used to classify if the person is diseased or not. We used CNN because they can process large amounts of data and produce highly accurate predictions. This might help the people to notice the disease in early times so that they can receive timely treatment

Keywords: BI Parallel CNN, Deep Learnig

1

A project report on
**FAKE PRODUCT IDENTIFICATION USING
BLOCKCHAIN TECHNOLOGY**

Submitted in partial fulfillment of the requirements for award of the degree of
BACHELOR OF TECHNOLOGY

In
COMPUTER SCIENCE AND ENGINEERING

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This is to certify that the project report entitled "Fake Product Identification Using Blockchain Technology Submitted by P. D Sai Lakshmi (20U41A0549), K. Latha Rani (20U41A05D4), K. Surya Lohith (21U45A0504), Ch.Sridhar (20U41A05B0). In partial fulfillment of the requirements for award of the Degree of Bachelor of Technology in COMPUTER SCIENCE TECHNOLOGY, from Dadi Institute of Engineering & Technology(A), Anakapalle affiliated to JNTUGV, accredited by NAAC with 'A' grade is a record of bonafide work carried out by them under my guidance and supervision.

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G. Jayaswara

EXTERNAL EXAMINER

ABSTRACT

Counterfeit products pose a significant threat to consumers, manufacturers, and economies worldwide. To combat this problem, we propose a novel solution that leverages dynamic QR codes and blockchain technology for the identification of fake products. This innovative approach enhances product authentication and traceability while providing real-time, tamper-resistant data. In this system, dynamic QR codes, which evolve their content over time or in response to specific triggers, are embedded on each product. These codes are linked to a blockchain, creating a secure and evolving digital fingerprint for each item. Blockchain technology serves as the backbone of our system, providing an immutable and decentralized ledger to record all product-related transactions. This abstract highlights the potential of dynamic QR codes and blockchain technology to revolutionize product authentication, supply chain management, and consumer trust. It showcases the benefits of this integrated approach in combating counterfeit products, protecting brands, and ensuring product integrity in today's global marketplace.

Keywords: BLOCKCHAIN TECHNOLOGY, ETHEREUM, REACT js, COUNTERFEIT PRODUCTS.

A Project report on
Driver Drowsiness Detection Using Computer Vision
Submitted in partial fulfilment of the requirements for award of the degree of
BACHELOR OF TECHNOLOGY

In
Computer Science and Engineering

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G Bhavana
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A Venkataramana
(20U41A0540)

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This is to certify that the project report entitled “**Driver Drowsiness Detection Using Computer Vision**” submitted by K Bhavani (20U41A05D7), G Bhavana (20U41A0563), A Venkataramana (20U41A0540), B Madhurya (20U41A05B3). In partial fulfilment of the requirements for award of the Degree of **Bachelor of Technology in Computer Science and Engineering**, from Dadi Institute of Engineering & Technology(A), Anakapalle affiliated to JNTUGV, accredited by NAAC with 'A' grade is a record of bonafide work carried out by them under my guidance and supervision.

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M. Y. S. R. V.
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ABSTRACT

Now a days there is a significant increase in road accidents. One of the major reason for that is driver fatigue According to recent statistics annually 1,200 deaths and 76,000injuries can be attributed to fatigue related crashes. It plays a significant factor in road accidents. Drowsiness is a state of being drowsy or sleepy A person who is experiencing drowsiness may feel tired and will have difficulty staying awake A sleepy driver is far more dangerous than a driver driving at a high speed Driver Drowsiness helps in detecting whether driver is inactive state or he/she is in drowsy state. It helps in preventing huge amount of road accidents. We will be using Computer Vision algorithms like viola jones algorithm to extract facial features especially eyes and mouth regions in order to calculate EYE aspect ratio(EAR) and Mouth Aspect ratio(MAR) and also we will use different types of machine learning techniques to effectively detect the driverstate. We will be comparing multiple machine learning models and will be using the most effective one to develop a real-time drowsiness detector. This system will warn driver and sending alert voice message if it detects a drowsy state. Hence preventing any kind of road accidents.

KEYWORDS: Viola Jones Algorithm, Computer Vision, Machine Learning Models.

A project report on
Student Feedback System

Submitted in partial fulfilment of the requirements for award of the degree of

BACHELOR OF TECHNOLOGY

in

Computer Science and Engineering

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(2020-2024)



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ABSTRACT

The main theme of our project is to digitize the feedback from students and then categorize it as either positive or negative. The categorized data will be accessed by specified college administrators. The Student Feedback System (SFS) is a tool that uses machine learning algorithms to analyze and predict student performance, providing educators with personalized insights for targeted interventions. The system integrates real-time assessment data, allowing for continuous monitoring and evaluation of student progress. It also serves as an early warning system, identifying students at risk of falling behind, and enhancing teaching-learning processes. The SFS has the potential to significantly impact student success and create a more personalized educational experience. The performance metrics considered in our project were Accuracy, Precision, and Recall. The categories in our model were Accuracy, Precision, and Recall. The categories in our model were Canteen, Hostel, and College Management.

Keywords: Feedback system; Machine learning; Support vector machine; Navie bayes algorithm.

**A project report on
FACE MASK DETECTION
USING MACHINE LEARNING**

Submitted in partial fulfillment of the requirements for award of the
degree of

BACHELOR OF TECHNOLOGY

In

COMPUTER SCIENCE ENGINEERING

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This is to certify that the project report entitled "Face Mask detection Using Machine Learning" submitted by P. Venkata Abhilash (20U41A0509), D. Likhita Sree (20U41A0593), Y. Harsha Sri Vardhan (20U41A05D9), G. Lakshmi Sai (20U41A0589). In partial fulfilment of the requirements forward of the Degree of Bachelor of Technology in Department of Computer Science & Engineering, from Dadi Institute of Engineering & Technology(A), Anakapalle affiliated to JNTUGV, accredited by NAAC with 'A' grade is a record of bonafide work carried out by them under my guidance and supervision.

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G. Jayasuma
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ABSTRACT

COVID-19 pandemic has rapidly affected our day-to-day life disrupting world trade & movements. Wearing a protective face mask has become a new normal. In the near future, many public service providers will ask the customers to wear masks correctly to avail of their services. Therefore, face mask detection has become a crucial task to help global society. This project presents a simplified approach to achieve this purpose using some basic Machine Learning packages like TensorFlow, Keras, OpenCV & MobileNet. The proposed method detects the face & then identifies if it has a mask on it or not. With further improvements these types of models could be integrated with CCTV cameras to detect and identify people without masks. This project can be integrated with embedded systems for application in airports, railway stations, offices, schools & public places to ensure that public safety guidelines are followed.

The face mask detection project is a computer vision-based system designed to detect whether a person is wearing a face mask or not. The project uses deep learning algorithms and image processing techniques to analyze real-time video feeds and identify individuals who are not adhering to the mask-wearing guidelines. The system can be used in public spaces such as airports, train stations, schools, and hospitals to promote compliance with health regulations and reduce the spread of infectious diseases. The project is a significant step towards enhancing public health and safety during the ongoing COVID-19 pandemic and beyond.

The face mask detection project has several advantages over traditional methods of monitoring compliance with mask-wearing guidelines. For instance, it is more efficient and less prone to error than manual inspections. The system can also process data in real-time, which means that it can alert authorities immediately if someone is not wearing a mask. The project can also be integrated with existing security systems, making it easier to deploy and manage.

A project report on
AGE DETECTION FROM FACES USING CNN

Submitted in partial fulfilment of the requirements for award of the degree of

BACHELOR OF TECHNOLOGY
In
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This is to certify that the project report entitled "AGE DETECTION FROM FACES USING CNN" submitted by D.Chandini (20U41A05C4), K.Sumanth (20U41A0558), K. Sai Varaha Mounika (20U41A0592), M. Sai Yeswanth (20U41A05B8). In partial fulfilment of the requirements for award of the Degree of Bachelor of Technology in Computer Science and Engineering, from Dadi Institute of Engineering & Technology(A), Anakapalle affiliated to JNTUGV, accredited by NAAC with 'A' grade is a record of bonafide work carried out by them under my guidance and supervision.

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ABSTRACT

Age detection is a fundamental task in computer vision with various real-world applications, including security systems, personalized user experiences, and healthcare. In this study, we propose a Convolutional Neural Network (CNN) approach for age detection from facial images. Our model utilizes deep learning techniques to extract discriminative features from facial images, allowing for accurate age estimation. We employ a large-scale dataset containing diverse facial images across different age groups to train and evaluate our model. Through extensive experimentation, we demonstrate the effectiveness of our CNN-based approach in accurately predicting age from facial images, achieving state-of-the-art performance compared to existing methods. Our results highlight the potential of deep learning techniques, particularly CNNs, in addressing age detection tasks with practical implications in various domains. We design and train a CNN model on a large-scale dataset of facial images annotated with age labels. The CNN architecture is tailored to effectively capture both low-level and high-level facial features that are informative for age prediction. Overall, our proposed approach offers a promising solution for age detection from facial images, with implications for various real-world applications requiring accurate and efficient age estimation.

Keywords: Age detection, Convolutional Neural Networks (CNNs), Deep learning, Facial wrinkles, Image processing.

A project report on

Detection Of Chronic Kidney Disease Using Deep Learning

Submitted in partial fulfilment of the requirements for award of the degree of

BACHELOR OF TECHNOLOGY

In

COMPUTER SCIENCE AND ENGINEERING

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This is to certify that the project report entitled “**Detection Of Chronic Kidney Disease Using Deep Learning**” submitted by S.V.Tejaswini (20U41A05A8), R.Duraga prasad (20U41A05A9), P.Lakshmi (20U41A0566), Y.Rambabu (20U41A0576) In partial fulfilment of the requirements for award of the Degree of **Bachelor of Technology in Computer Science And Engineering**, from Dadi Institute of Engineering & Technology(A), Anakapalle affiliated to JNTUGV, accredited by NAAC with 'A' grade is a record of bonafide work carried out by them under my guidance and supervision.

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ABSTRACT

Chronic kidney disease (CKD) is a dangerous ailment that can last a person's entire life and is caused by either kidney malignancy or decreased kidney functioning. It is feasible to halt or slow the progression of this chronic disease to an end-stage wherein dialysis or surgical intervention is the only method to preserve a patient's life. Earlier detection and appropriate therapy can increase the likelihood of this happening. Throughout this research, the potential of several different machine learning approaches for providing an early diagnosis of CKD has been investigated. There has been a significant amount of research conducted on this topic. Nevertheless, we are bolstering our approach by making use of predictive modeling. Therefore, in our approach, we investigate the link that exists between data factors as well as the characteristics of the target class. We are capable of constructing a collection of prediction models with the help of machine learning and predictive analytics, thanks to the better measures of attributes that can be introduced using predictive modeling. This study starts with 25 variables in addition to the class property, but by the end, it has narrowed the list down to 30% of those parameters as the best subset to identify CKD. Three different machine learning-based classifiers have been tested in a supervised learning environment. Within the confines of a supervised learning environment, a total of 3 different machine learning-based classifiers have indeed been examined, with the greatest performance indicators being an accuracy of 100, for the Xg Boost classifier. The way the research was done leads to the conclusion that recent improvements in machine learning, along with the help of predictive modeling, make for an interesting way to find new solutions that can then be used to test the accuracy of prediction in the field of kidney disease and beyond

Keywords : Chronic Kidney Disease, machine learning ,Xg boost classifier, Decision tree

Classifier, LightBgm

A project report on
COVID-19 PREDCTION USING X-RAY

Submitted in partial fulfilment of the requirements for award of the degree of
BACHELOR OF TECHNOLOGY

In
COMPUTER SCIENCE AND ENGINEERING

By

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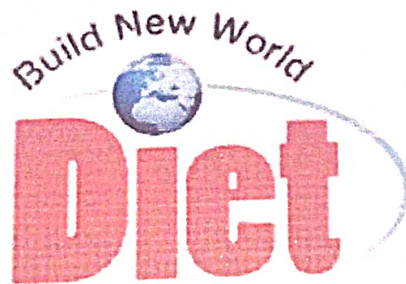
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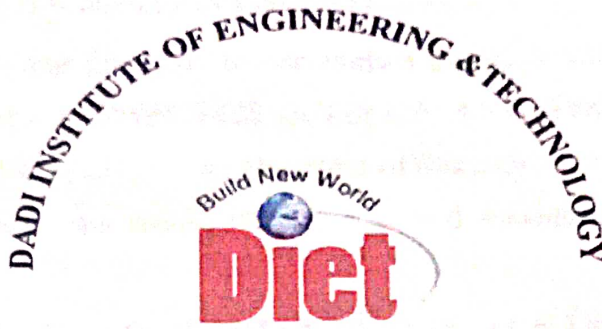


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EXTERNAL EXAMINER

ABSTRACT

This consider addresses the worldwide challenge of the quick spread of the coronavirus illness (COVID-19) by emphasizing the urgent part of early conclusion and segregation in controlling its transmission. To realize dependable and proficient location, the inquire about investigates the application of profound learning (DL) methodologies, particularly utilizing two particular DL approaches based on a pre-trained neural organize demonstrate, ResNet-50, for examining chest X-ray (CXR) pictures. The pre-processing arrange includes expanding, upgrading, normalizing, and resizing CXR pictures to a standardized measurement. The proposed DL strategy presents a novel outfit approach, leveraging different runs of a altered form of ResNet-50, to classify CXR pictures. Assessment is conducted on two broadly recognized benchmark datasets, to be specific the COVID-19 Picture Information Collection (IDC) and CXR Pictures (Pneumonia), as often as possible utilized by analysts. Comparative examination illustrates the prevalence of the proposed framework over existing strategies such as VGG or Caves net, accomplishing measurements surpassing 99.63% in precision, accuracy, review, F1-score, and Region beneath the bend (AUC). These execution comes about emphasize the adequacy and dominance of the proposed DL strategy in COVID-19 location utilizing CXR pictures.

Keywords:

COVID-19, chest X-ray, pneumonia, profound exchange learning, neural organize (NN)

**A project report on
Malware Detection using Deep learning**

Submitted in partial fulfilment of the requirements for award of the degree of

BACHELOR OF TECHNOLOGY

In

COMPUTER SCIENCE AND ENGINEERING

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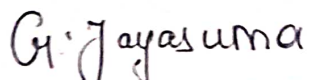
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This is to certify that the project report entitled "MALWARE DETECTION USING DEEP LEARNING" submitted by Gonna Nanda Kishor (20U41A0511), Akula Srinivas Rao (20U41A05A0), Yellankula Sai Manoj (20U41A0550), Matala Manikanta (20U41A0555) In partial fulfilment of the requirements for award of the Degree of Bachelor of Technology in COMPUTER SCIENCE AND ENGINEERING, from Dadi Institute of Engineering & Technology(A), Anakapalle affiliated to JNTUGV, accredited by NAAC with 'A' grade is a record of bonafide work carried out by them under my guidance and supervision.


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Computer Science & Engg.
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EXTERNAL EXAMINER

ABSTRACT

Malware continues to be a serious threat starting from home users to large enterprises. This makes it a hot research topic detection of malware is done using static and dynamic analysis of malware signatures and behavior patterns. These are proven to be ineffective and time consuming while detecting unknown malware. In order to identify the new malware many machine learning algorithms are created. Feature engineering is a key step for building these algorithms. This takes too much time. By using deep learning techniques this step can be completely avoided. Recent research reported that many of them used biased dataset, which is completely ineffective in real-time situations. Hence this drives to create a new algorithm/architecture to detect malware using deep learning. By using specialized convolutional neural networks for capturing patterns in malware sequences using the concept of weigh sharing. Also adding this with recurrent neural networks, we could capture recurring patterns in malware.

Keywords: Malware analysis, Convolutional Neural Networks, Recurrent Neural Networks, Image processing.

A project report on

HAND WRITTEN DIGIT RECOGNITION USING DEEP LEARNING TECHNOLOGY

Submitted in partial fulfilment of the requirements for award of the degree of

BACHELOR OF TECHNOLOGY

In

COMPUTER SCIENCE DEPARTMENT

Submitted by

K.V.S.N SAILAJA
(19U41A0536)

ALLA HEMANTH CHANDRA SEKHAR
(20U45A0501)

Under the Esteemed guidance of

Mrs.S.VENKATA LAKSHMI

Asst.Professor; Department of CSE



DEPARTMENT OF COMPUTER SCIENCE ENGINEERING

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(AN AUTONOMOUS INSTITUTE)

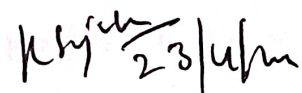
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NH-16, Anakapalle - 531002, Visakhapatnam
(2020-2024)



DEPARTMENT OF
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This is to certify that the project report entitled “**HAND WRITTEN DIGIT RECOGNITION**” submitted by K.V.S.N SAILAJA (19U41A0536), ALLA HEMANTH CHANDRA SEK HAR (20U45A0501). In partial fulfilment of the requirements for award of the Degree of **Bachelor of Technology in Computer Science Engineering**, from Dadi Institute of Engineering & Technology(A), Anakapalle affiliated to JNTUGV, accredited by NAAC with 'A' grade is a record of bonafide work carried out by them under my guidance and supervision.


PROJECT GUIDE


HEAD OF THE DEPARTMENT
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Dadi Institute of Engg. & Tech
Anakapalle-531002


EXTERNAL EXAMINER

ABSTRACT

Handwritten Digit recognition is an interesting deep learning problem in which we will identify the handwritten digits through various deep learning algorithms. Generally Handwritten digit recognition is the ability of a computer to recognize the human handwritten digits from different sources like images, papers, etc. The major steps to identify the handwritten digits are firstly preprocessing and next digit detection, the next feature extraction, and finally classification. Amongst these four steps, the most critical one is the detection step because the entire module is based upon detecting which number it is. In this we use a recognition technique called CNN. Handwritten digit recognition can be performed using the Convolutional neural network from Machine Learning. Using the MNIST (Modified National Institute of Standards and Technologies) database and compiling with the CNN gives the basic structure of my project development. So, basically to perform the model we need some libraries such as NumPy, 'Pandas', TensorFlow, Keras. MNIST data contains about 70,000 images of handwritten digits from 0-9. So, it is a class 10 classification model. This dataset is divided into 2 parts i.e., Training and Test dataset. Image representation as 28×28 matrix where each cell contains grayscale pixel value. Training dataset contains 60,000 images and Test dataset contains 10,000 images. After the training of images, we need to apply the model and get the accuracy.

Keywords: Historical handwritten digits, Digit recognition, SVM, CNN, MNIST dataset.

A project report on
SMS SPAM DETECTION

Submitted in partial fulfilment of the requirements for award of the degree of
BACHELOR OF TECHNOLOGY

In

COMPUTER SCIENCE AND ENGINEERING DEPARTMENT

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K.Sandhya Rani

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(2020-2024)



COMPUTER SCIENCE AND ENGINEERING

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This is to certify that the project report entitled "SMS SPAM DETECTION" submitted by L.Dhana Lakshmi (20U41A0556), K.Sandhya Rani (20U41A05A5), R.Kiran Kumar (20U41A0557), G.Naveen Kumar (20U41A05A3). In partial fulfilment of the requirements for award of the Degree of **Bachelor of Technology in Computer Science and Engineering**, from Dadi Institute of Engineering & Technology(A), Anakapalle affiliated to JNTUGV, accredited by NAAC with 'A' grade is a record of bonafide work carried out by them under my guidance and supervision.

D.K. Sujatha
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Dadi Institute of Engg & Tech
Anakapalle-531002

G. Jayasuma
EXTERNAL EXAMINER

ABSTRACT

In the modern era, SMS text messaging is a common form of communication, and approximately 16 billion messages are sent every day, unlike other chat systems such as Instagram, Telegram, and Snapchat. SMS works with no involvement of the internet at all, and anyone can send any message through a virtual number or phone number. Nowadays, cybercriminals are increasing daily. The primary task at hand is to create a resilient SMS spam detection system that can effectively determine whether a specific message falls under the category of spam or non-spam. This development is crucial to enhancing the overall user experience and ensuring optimal security measures. They send malicious links in the form of SMS text messages, through which they can take control of mobile devices. They attempt to steal confidential data, take control of the device, and engage in financial scams. Our project detects whether the message is spam or non-spam. Our project uses a database from the Kaggle Machine Learning repository, text pre-processing, model building, and stacking. Stacking is used to combine multiple model results into a single result in the model. A dictionary of spam words is created using the TF-IDF vectorizer algorithm, which classifies the input message as spam or non-spam. Our project is based on the Naive Bayes classification algorithm, which is a supervised learning algorithm in machine learning.

Keywords : SMS, SPAM and HAM, Machine Learning , TF-IDF Vectorizer, Text Classification

A project report on
Credit Card Fraudulent Transaction Detection
Using Deep Learning

Submitted in partial fulfillment of the requirements for award of the degree of
BACHELOR OF TECHNOLOGY

In

COMPUTER SCIENCE & ENGINEERING

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(2020-2024)

**DEPARTMENT OF COMPUTER SCIENCE &
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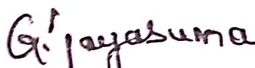
CERTIFICATE

This is to certify that the project report entitled "Credit Card Fraud Transaction Detection using Deep Learning" submitted by R. Teja(20U41A0539), K. Santhosh(20U41A0547), I. Vamsi(20U41A0582), A. Dhanunjay (20U41A05C1). In partial fulfillment of the requirements for award of the Degree of Bachelor of Technology in CSE, from Dadi Institute of Engineering & Technology(A), Anakapalle affiliated to JNTUGV, accredited by NAAC with 'A' grade is a record of bonafide work carried out by them under my guidance and supervision.


PROJECT GUIDE


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EXTERNAL EXAMINER

ABSTRACT

Credit card fraud is a significant concern for financial institutions and cardholders, leading to billions of dollars in losses annually. Traditional fraud detection methods often struggle to keep up with the evolving tactics of fraudsters. In recent years, machine learning techniques, particularly Convolutional Neural Networks (CNNs), have shown promise in improving fraud detection accuracy. In this project, we propose a CNN-based approach for credit card fraud detection. CNNs are well-suited for this task due to their ability to automatically learn relevant features from raw data, making them effective in detecting complex patterns in credit card transactions. Our approach involves preprocessing the transaction data, such as normalizing values and encoding categorical variables, to prepare it for input into the CNN model. To evaluate the performance of our CNN model, we use a publicly available dataset containing a mix of legitimate and fraudulent credit card transactions. We split the dataset into training, validation, and test sets and train the model on the training set, tuning hyperparameters using the validation set. Finally, we evaluate the model on the test set using metrics such as accuracy, precision, recall, and F1-score. Our experimental results demonstrate the effectiveness of the proposed CNN-based approach for credit card fraud detection. The model achieves high accuracy and outperforms traditional fraud detection methods. Additionally, the model's ability to automatically learn features from raw data makes it adaptable to new and emerging fraud patterns, providing a more robust defense against fraudulent activities. In conclusion, our project highlights the potential of CNNs in improving credit card fraud detection. By leveraging the power of deep learning, financial institutions can enhance their fraud detection capabilities and better protect their customers from fraudulent activities.

Keywords: CNN Layers, Kaggle Dataset, Credit Card, Fraud

A PROJECT REPORT ON
CONVERSION OF SIGN LANGUAGE TO TEXT LANGUAGE
USING DEEP LEARNING

Submitted in partial fulfilment of the requirements for award of the degree of
BACHELOR OF TECHNOLOGY

In

COMPUTER SCIENCE AND ENGINEERING

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(2020- 2024)



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This is to certify that the project report entitled "CONVERSION OF SIGN LANGUAGE TO TEXT LANGUAGE USING DEEP LEARNING" submitted by G. Siva prasad (20U41A05B7), S. Hemanth Vara Sai (21U45A0506), N.Uday Kiran (20U41A05C2), K, Teja (20U41A0560). In partial fulfilment of the requirements for award of the Degree of Bachelor of Technology in computer science engineering and technology, from Dadi Institute of Engineering & Technology(A), Anakapalle affiliated to JNTUGV, accredited by NAAC with 'A' grade is a record of Bonafede work carried out by them under my guidance and supervision.

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PROJECT GUIDE

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Head of the Department
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Anakapalle-531002

Gr Jayasuma

EXTERNAL EXAMINER

ABSTRACT

Sign language is one of the oldest and most natural form of language for communication, but since most people do not know sign language and interpreters are very difficult to come by, we have come up with a real time method using neural networks for fingerspelling based American sign language. In our method, the hand is first passed through a filter and after the filter is applied the hand is passed through a classifier which predicts the class of the hand gestures. Our method provides 95.7 % accuracy for the 26 letters of the alphabet.

A project report on
**FRAUD LOAN DETECTION SYSTEM USING DEEP
LEARNING**

Submitted in partial fulfillment of the requirements for award of the degree of

BACHELOR OF TECHNOLOGY

In

COMPUTER SCIENCE ENGINEERING

By

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(20U41A05C6)

G.JANAKIRAM

(20U41A05B4)

A.JAHANAVI

(20U41A0568)

B.BHANU PRAKASH RAJU

(20U41A05D8)

Under the Esteemed guidance of

Mrs B.Grishma Poornima Himaketan , Assistant professor,

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NH-16, Anakapalle – 531002, Visakhapatnam, A.P.

(2020-2024)



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B. Lakshmi
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G. Jayasuma
EXTERNAL EXAMINER

M. S. Srinivasulu
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Anakapalle-531002

ABSTRACT

This project represents a significant stride towards combating fraudulent activities in crucial sectors like finance and e-commerce by harnessing the power of advanced deep learning models, specifically LSTM networks and CNNs. Its comprehensive approach encompasses every stage of model development, from data collection from IBM's predict-fraud-using-auto-ai repository to rigorous experimentation and meticulous hyperparameter tuning. By leveraging transactional data, the project ensures the authenticity and relevance of its findings, laying a solid foundation for accurate fraud detection. Throughout its lifecycle, the project prioritizes performance evaluation using key metrics such as accuracy, precision, recall, and F1-score, ensuring that the developed models meet stringent criteria for effectiveness. Moreover, the deployment phase is executed with precision, ensuring seamless integration into applications or APIs for real-time fraud detection capabilities. Serialization of trained models facilitates easy integration, enabling organizations to bolster their fraud prevention mechanisms swiftly and effectively. Looking ahead, the project outlines a roadmap for future enhancements, demonstrating its commitment to continuous improvement and innovation. Exploration of ensemble methods, integration of additional features, and fine-tuning of hyperparameters promise to enhance the robustness and accuracy of the fraud detection system further. Moreover, the incorporation of real-time monitoring mechanisms and anomaly detection techniques underscores the project's proactive approach to staying ahead of evolving fraud tactics. By addressing the critical need for advanced fraud detection mechanisms, this project aims to mitigate financial losses attributed to fraudulent activities, thereby safeguarding the interests of businesses and consumers alike. Through the fusion of cutting-edge deep learning methodologies and state-of-the-art techniques, it seeks to bolster the resilience of industries against fraudulent endeavors, ultimately fostering trust and integrity in financial transactions.

KEYWORDS : Fraud Loan Detection System, Deep Learning Models, Real-time Monitoring

A project report on
Plant Detector Using Deep Learning

Submitted in partial fulfillment of the requirements for award of the degree of
BACHELOR OF TECHNOLOGY

In
Computer Science and Engineering

By
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M.Ganesh
(21U45A0516)

CH.Nikhila
(20U41A05D1)

Y.Karthik
(21U45A0517)

Under the Esteemed guidance of
Mrs.K.U.V.Padma
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NH-16, Anakapalle – 531002, Visakhapatnam, A.P.

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This is to certify that the project report entitled "Plant Detector using Deep learning" submitted by I.Satyanand (21U45A0518), M.Ganesh (21U45A0516), CH.Nikhila (20U41A05D1), Y.Karthik (21U45A0517). In partial fulfillment of the requirements for award of the Degree of **Bachelor of Technology in Computer Science and Engineering** from Dadi Institute of Engineering & Technology(A), Anakapalle affiliated to JNTUGV, accredited by NAAC with 'A' grade is a record of bonafide work carried out by them under my guidance and supervision.

PROJECT GUIDE

Wjck
12/4/24

Head of the Department
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G. Jayasuma
EXTERNAL EXAMINER

ABSTRACT

This project presents an innovative system leveraging Convolutional Neural Networks (CNN) for the precise identification of various plants and vegetation. By integrating advanced image recognition techniques, the system thoroughly analyzes uploaded images encompassing plants, fruits, vegetables, and leaves, offering users comprehensive information about the identified species. Beyond mere identification, the system provides valuable insights into seasonal characteristics, soil preferences, common diseases, recommended treatments, and optimal cultivation practices associated with each plant species. Through the application of deep learning methodologies, this initiative seeks to democratize botanical knowledge, granting users access to essential insights into plant identification and cultivation practices. By harnessing the power of CNNs, this project aims to empower individuals with the tools necessary to understand and engage with the botanical world effectively.

KEYWORDS : Deep Learning, Convolutional Neural Networks (CNN), Plant Recognition, Botanical Informatics, Machine Learning Application, Automated Plant Analysis, Soil Preferences, Seasonal Characteristics, Medicinal Plants.

A project report on
Road Accident Detection

Submitted in partial fulfillment of the requirements for award of the degree of
BACHELOR OF TECHNOLOGY

In

Computer Science And Engineering

By

P. Jagan Sai (20U41A05B2)

G. Sandeep
(20U41A05D5)

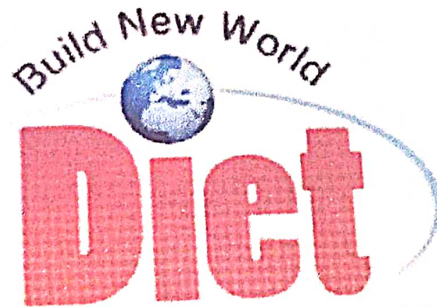
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COMPUTER SCIENCE AND ENGINEERING

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Shanika
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G. Jayasuma
EXTERNAL EXAMINER

ABSTRACT

Traffic has become an integral part of people's life in recent years, influencing a wide range of human activities and services. Accidents have been a leading cause of death worldwide, particularly in India. Approximately more than 80% of accident related deaths cases are caused by lack of timely assistance to accident victims rather than the accident itself. One of the basic reasons for the vehicle accident is the vehicle speed and there are many others too.

Many lives can be saved if there was a proper emergency service that could get accident information in time. Computer vision- based accident detection on traffic video surveillance is an advantageous but also a challenging task. This paper proposes automated accident detection from traffic videos. Here the frames are extracted from the video shots.

According to worldwide statistics, traffic accidents are the cause of a high percentage of violent deaths. The time taken to send the medical response to the accident site is largely affected by the human factor and correlates with survival probability. Due to this and the wide use of video surveillance and intelligent traffic systems, an automated traffic accident detection approach becomes desirable for computer vision researchers.

Nowadays, Deep Learning (DL)-based approaches have shown high performance in computer vision tasks that involve a complex features relationship. Therefore, this work develops an automated DL-based method capable of detecting traffic accidents on video. The proposed method assumes that traffic accident events are described by visual features occurring through a temporal way.

Therefore, a visual features extraction phase, followed by a temporary pattern identification, compose the model architecture. The visual and temporal features are learned in the training phase through convolution and recurrent layers using built- from-scratch and public datasets. An accuracy of 98% is achieved in the detection of accidents in public traffic accident datasets, showing a high capacity in detection independent of the road structure. The death rate of developing countries is about 21.5 per million people, which is 7070 much higher when compared to the 11.3 per million people with higher income or those belonging to the developed countries.

Key Words : Urban traffic detection, deep learning, convolutional neural networks.

A project report on
**EMOTION BASED MUSIC
RECOMMENDATION SYSTEM**

Submitted in partial fulfilment of the requirements for award of the degree of

BACHELOR OF TECHNOLOGY

In

COMPUTER SCIENCE AND ENGINEERING

By

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(2020-2024)



COMPUTER SCIENCE AND ENGINEERING

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This is to certify that the project report entitled “EMOTION BASED MUSIC RECOMMENDATION SYSTEM” submitted by A.Manoj Kumar (20U41A0591), V.Venkata Praveen (20U41A0571), E.Prem Kumar (20U41A0597), L.Jathin Sai (20U41A0562). In partial fulfilment of the requirements for award of the Degree of **Bachelor of Technology in Computer Science and Engineering**, from **Dadi Institute of Engineering & Technology(A)**, Anakapalle affiliated to JNTUGV, accredited by NAAC with 'A' grade is a record of bonafide work carried out by them under my guidance and supervision.

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Gr. Jayasuma .
EXTERNAL EXAMINER

The work presents described the development of Emotion Based Music Recommendation system, which is a computer application meant for all type of users, specifically the music lovers. Due to the troublesome workloads in songs selection, most people will choose to randomly play the songs in the playlist. As a result, some of the songs selected not matching the users' current emotion. Moreover, there is no commonly used music player which able to play the songs based on user's emotion. The proposed model is able to extract user's facial expression and thus detect user's emotion. The proposed model will recommend the songs playlist according to the category of emotion detected. It is aimed to provide a better enjoyment to music lovers in music listening. The scope of emotions in the proposed model involve normal, sad, surprise and happy. The system involves the major of image processing and facial detection technologies. The system uses a CNN algorithm to analyze the user facial emotion and capture the image with help of a webcam. The user's picture is taken and then as per the mood/emotion of the user an appropriate song from the playlist of the user is shown matching the user's requirement. Based on the testing result, the proposed model has the Recognition Rate of 85%.

Keywords: FER 2013 Data Set, CNN Algorithm, Streamlit , using basic Machine Learning(ML)packages such as Open CV,Keras and Tensorflow:

A project report on
CRYPTO CURRENCY PRICE PREDICTION

Submitted in partial fulfilment of the requirements for award of the degree of
BACHELOR OF TECHNOLOGY

In

COMPUTER SCIENCE AND ENGINEERING

By

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P. Chandra Shekhar
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13/12/20
PROJECT GUIDE

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Gr. Jayarama
EXTERNAL EXAMINER

ABSTRACT

Blockchain technology is significantly impacted by the dominating asset, Bitcoin. The goal of the study was to accurately predict the price of Bitcoin and others while accounting for many factors that affect its value. Our objective is to comprehend and recognize regular trends in the Bitcoin and other markets in addition to learning about the best aspects associated with the price of Bitcoin and others. The data set is made up of many components that have been monitored every day for the entire year in connection to the price of crypto currency and the payment network. The opening price, highest price, lowest price, closing price, volume of Bitcoin, volume of other currencies, and weighted price were all taken into consideration when predicting the closing price of the following day.

KEYWORDS: Machine Learning, XGBoost Algorithm, Time Series Analysis, Sentiment Analysis, Regression Analysis.

A project report on
Handwritten Character Recognition Using Deep Learning

Submitted in partial fulfilment of the requirements for award of the degree of

BACHELOR OF TECHNOLOGY

In

Computer Science and Engineering

By

D Pavan Kumar

(21U45A0502)

B Kulwanth Kumar

(20U41A0588)

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(20U41A05C9)

B Dilip Kumar

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Under the Esteemed guidance of

Mr.P.Uday Bhaskar

Assistant Professor, Department of CSE



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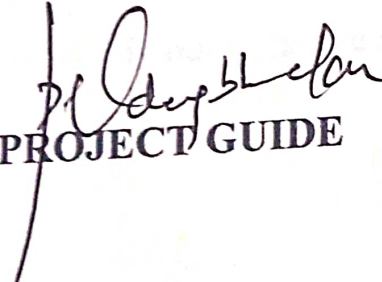
(2020-2024)

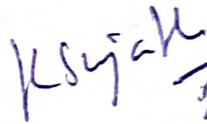


DEPARTMENT OF
COMPUTER SCIENCE AND ENGINEERING

CERTIFICATE

This is to certify that the project report entitled "Handwritten Character Recognition using Deep learning" submitted by D Pavan Kumar (21U45A0502), B Kulwanth Kumar (20U41A0588), K Soniya(20U41A05C9), B Dilip Kumar(20U41A05C7) in partial fulfilment of the requirements for award of the Degree of Bachelor of Technology in Computer Science and Engineering, from Dadi Institute of Engineering & Technology(A), Anakapalle affiliated to JNTUGV, accredited by NAAC with 'A' grade is a record of bonafide work carried out by them under my guidance and supervision.


PROJECT GUIDE


20/4/24
HEAD OF THE DEPARTMENT
Computer Science & Engg.
Dadi Institute of Engg. & Tech
Anakapalle-531002

Ch. Bindhumadhuri
EXTERNAL EXAMINER

ABSTRACT

Handwritten character Recognition has emerged as a crucial task in the field of computer vision and natural language processing. The ability to automatically decipher handwritten text has a wide range of applications, from digitalizing historical documents to assisting in data entry tasks. In recent years, deep learning techniques have shown remarkable advancements in handwritten character recognition due to their ability to learn complex features and patterns from data. The proposed system utilizes a deep learning architecture, specifically a convolutional neural network (CNN) to effectively capture information present in handwritten text. Initially, the handwritten images are pre-processed to enhance the quality and reduce noise. The pre-processed images are then fed into the CNN to extract relevant visual features. The model is trained end-to-end using a large dataset of labelled handwritten text samples. The CNN architecture effectively addresses the challenges associated with deciphering handwritten text, yielding impressive results on standard datasets. The information processing enhances the model's ability to recognize various handwriting styles accurately. The proposed system holds great promise for real-world applications in document digitization, data entry automation, and historical preservation, contributing to advancements in the fields of computer vision and natural language processing.

KEYWORDS : Computer vision, Natural language Processing, Decipher, Pre-process, Dataset.

A Project Report on
**PREDICTIVE PAYCHECKS
USING MACHINE LEARNING**

Submitted in partial fulfilment of the requirements for award of the degree of
BACHELOR OF TECHNOLOGY

In
COMPUTER SCIENCE & ENGINEERING

By

**G. MANASA
(20U41A0502)**

**P.SAI SRI LAKSHMI
(20U41A0525)
R. CHANDRA SEKHAR
(20U41A0564)**

**V.LAXMAN SAI KIRAN
(210U45A0513)**

**Under the Esteemed guidance of
Mr.Ch.S.K.V.R. Naidu, M. Tech
Assistant professor, Department of CSE**



**DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING
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(2020-2024)

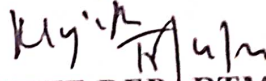


DEPARTMENT OF
COMPUTER SCIENCE & ENGINEERING
CERTIFICATE

This is to certify that the project report entitled “**Predictive Paychecks using machine learning**” submitted by P. Sai Sri Laxmi (20U41A0525), G. Manasa (20U41A0502), R.Chandra Sekhar (20U41A0564), V. Laxman Sai kiran(21U45A0513) In partial fulfilment of the requirements for award of the Degree of **Bachelor of Technology** in Department of **Computer Science & Engineering**, from Dadi Institute of Engineering & Technology(A), Anakapalle affiliated to JNTUGV, accredited by NAAC with 'A' grade is a record of bonafide work carried out by them under my guidance and supervision.

naidus 25/4/24
PROJECT GUIDE

C h. Bindu Mathuri
EXTERNAL EXAMINER


HEAD OF THE DEPARTMENT
Head of the Department
Computer Science & Engg.
Dadi Institute of Engg. & Tech
Anakapalle-531002

ABSTRACT

Predictive paychecks is a task of estimating the salary based on various factors such as education, years of experience, skills, location etc. It is useful for both employers and employees to have a fair and realistic expectation of the salary range for a given job role. In today's dynamic workforce landscape, predicting paychecks accurately is crucial for financial planning and budgeting, both for individuals and organizations. This approach using machine learning techniques to forecast paychecks based on various factors such as employment type, historical earnings, economic indicators, and individual profiles. The goal of this research is to develop a predictive model that can estimate future paychecks with high accuracy. By leveraging historical payroll data and employing advanced machine learning algorithms, including regression and time series analysis, this study aims to capture patterns and relationships that influence income fluctuations. Key components of the proposed methodology include data preprocessing to handle missing values and outliers, feature engineering to extract relevant information from raw data, and model training using supervised learning techniques. The model's performance will be evaluated using metrics like Mean Absolute Error (MAE) and Root Mean Square Error (RMSE) to assess its predictive capability. Overall, this study contributes to the growing field of financial technology (FinTech) by demonstrating how machine learning can be leveraged to enhance financial decision-making and empower individuals and organizations to better manage their finances. The findings of this research could have significant implications for improving financial well-being and stability in an increasingly uncertain economic environment.

A project report on
HELMET DETECTING USING DEEP LEARNING

Submitted in partial fulfilment of the requirements for award of the degree of
BACHELOR OF TECHNOLOGY

In
COMPUTERSCIENCE AND ENGINEERING DEPARTMENT

By

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J. RAMYA
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**DEPARTMENT OF
COMPUTER SCIENCE & ENGINEERING**

CERTIFICATE

This is to certify that the project report entitled "Helmet Detection Using Deep Learning" submitted by **K. Varsha Sri (20U41A0573), J. Ramya (20U41A0581), K. Gyana Prasanna (20U41A0584), A. Renuka Gowthami (20U41A0578)**, in partial fulfilment of the requirements for award of the Degree of **Bachelor of Technology in Computer Science & Engineering** from **Dadi Institute of Engineering & Technology(A)**, Anakapalle affiliated to **JNTUGV**, accredited by **NAAC** with 'A' grade is a record of bonafide work carried out by them under my guidance and supervision.

My signature
18/4/24

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My signature
18/4/24

HEAD OF THE DEPARTMENT
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Anakapalle-531002

Ch. Bindu Madhavi
EXTERNAL EXAMINER

ABSTRACT

Now a days motorcycles are a commonly used all over the world. Safety of riders depends upon on wearing helmets. Therefore, wearing helmets is highly recommended to riders for their safety. So many riders wear helmet only when traffic police is present. An intelligent traffic system must automatically detect those who are breaking the traffic rules. The main aim of helmet detection system is to make every rider should wear helmet while riding the motor cycle. While helmets significantly reduce head injuries, many riders choose not to wear them. Deep learning presents a powerful solution for automatic bike helmet detection, with the potential to enhance motorcycle safety through innovative applications. Deep learning empowers automatic bike helmet detection by training models on diverse data (riders with/without helmets) and deploying them for real-time identification or large-scale analysis. Deep learning helps keep riders safe. It spots people without helmets and guides campaigns to target those areas.

Keywords : Open cv, Matplotlib, Python Imaging Library, Numpy

A Project report on

DRIVERS DISTRACTION DETECTION USING CNN

Submitted in partial fulfilment of the requirements for award of the degree of

BACHELOR OF TECHNOLOGY

In

COMPUTER SCIENCE ENGINEERING

By

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PREETHI KUMARI SHA

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NH-16, Anakapalle - 531002, Visakhapatnam, A.P.

(2020 - 2024)



Dept. of COMPUTER SCIENCE AND ENGINEERING

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This is to certify that the project report entitled "DRIVERS DISTRACTION DETECTION USING CNN" submitted by K.Lalini (20U41A0521), Ch.N.S.Prasanthi (20U41A0522), Preethi Kumari Sha (20U41A0523), S.Raju(20U41A0508). In partial fulfilment of the requirements for award of the Degree of Bachelor of Technology in Department of Computer Science & Engineering, from Dadi Institute of Engineering & Technology(A), Anakapalle affiliated to JNTUGV, accredited by NAAC with 'A' grade is a record of bonafide work carried out by them under my guidance and supervision.

PROJECT ASSOCIATE

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HEAD OF THE DEPARTMENT

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Ch. Bindhumadhuri
EXTERNAL EXAMINER

ABSTRACT

Driver distractions pose a significant challenge to road safety, resulting in an increased risk of accidents and injuries. To detect various kinds of behaviour like- using cell phone, talking to others, eating, sleeping or lack of concentration during driving; Machine Learning/Deep Learning can play significant role. However, this process may need high computational capacity to train the model by huge number of training dataset. The process is computationally intensive because these models have many parameters, and training them effectively involves using large and diverse datasets. In this paper, we made an effort to develop CNN based method to detect distracted driver and identify the cause of distractions like talking, sleeping or eating by means of face and hand localization. Four architectures namely CNN, VGG-16, ResNet50 and MobileNetV2 have been adopted for transfer learning. To verify the effectiveness, the proposed model is trained with thousands of images from a publicly available dataset containing ten different postures or conditions of a distracted driver and analysed the results using various performance metrics. The performance results showed that the pre-trained MobileNetV2 model has the best classification efficiency.

Keywords: {CNN, VGG-16, ResNet50, MobileNetV2}

A project report on
EMOTION RECOGNITION USING SPEECH
PROCESSING

Submitted in partial fulfillment of the requirements for the award of the degree of
BACHELOR OF TECHNOLOGY

In
COMPUTER SCIENCE & ENGINEERING

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B.Bharghavi
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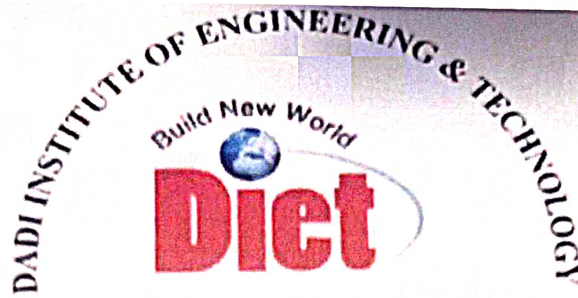
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(2020-2024)



DEPARTMENT OF
COMPUTER SCIENCE ENGINEERING

CERTIFICATE

This is to certify that project work entitled "Emotion recognition using speech processing" is being submitted by M.Nagalakshmi(20U41A0541),D.Saathvika(20U41A0554),A.Mahitha Sri Varshini(20U41A0537),B.Bhargavi(20U41A0544). In partial fulfillment of the requirement for the award of the degree of BACHELOR OF TECHNOLOGY(A),Anakapalle affiliated to JNTUGV ,accredited by NAAC with 'A' grade is a record of bonafide work carried by them under my guidance and supervision .


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Ch. Bindhumadhwi
EXTERNAL EXAMINER

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Head of the Department
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ABSTRACT

Emotion recognition using speech processing has emerged as a pivotal research area with applications spanning from human-computer interaction to mental health diagnosis. This study investigates the extraction of emotional cues embedded within speech signals to discern underlying emotional states. Through sophisticated signal processing techniques and machine learning algorithms, such as Support Vector Machines (SVMs) and Convolutional Neural Networks (CNNs), the research aims to decipher nuanced emotional expressions including joy, sadness, anger, and more. Key aspects of the investigation include feature extraction methodologies to capture relevant acoustic properties, dataset curation for model training and evaluation, and algorithmic advancements to enhance recognition accuracy and robustness across diverse linguistic and cultural contexts. The findings of this research hold significant implications for fields such as affective computing, virtual assistants, and mental health monitoring systems. Ultimately, the pursuit of effective emotion recognition through speech processing promises to enrich human-computer interaction paradigms, paving the way for more empathetic and context-aware technological interfaces.

A project report on
**DEEP FAKE DETECTION: UNMASKING REALITY
WITH MACHINE LEARNING**

Submitted in partial fulfillment of the requirements for the award of the degree of
BACHELOR OF TECHNOLOGY

In

COMPUTER SCIENCE AND ENGINEERING

By

K.HEMALATHA

(20U41A0533)

K.LALITH KUMAR

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(20U41A0599)

K.H.S.HARSHA VARDHAN

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Mrs. B.G. POORNIMA HIMAKETAN

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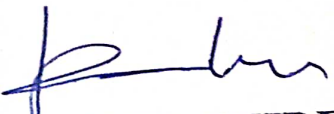
(2020-2024)




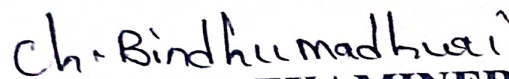
DEPARTMENT OF COMPUTER SCIENCE ENGINEERING

CERTIFICATE

This is to certify that the project report entitled "DEEP FAKE DETECTION: UNMASKING REALITY WITH MACHINE LEARNING" submitted by K. Hemalatha (20U41A0533), K. Ganeswar (20U41A0599), K.H.S. Harsha Vardhan (20U41A05B9), K. Lalith Kumar (20U41A0567). In partial fulfilment of the requirements for award of the Degree of Bachelor of Technology in Department of Computer Science & Engineering, from Dadi Institute of Engineering & Technology(A), Anakapalle affiliated to JNTUGV, accredited by NAAC with 'A' grade is a record of bonafide work carried out by them under my guidance and supervision.


PROJECT GUIDE


HEAD OF THE DEPARTMENT
Head of the Department
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Anakapalle-531002


EXTERNAL EXAMINER

ABSTRACT

This study proposes a novel approach for detecting deepfake videos by combining Convolutional Neural Networks (CNN) and Recurrent Neural Networks (RNN). The CNN is employed to extract spatial features from individual frames, capturing intricate patterns and facial expressions characteristic of deepfake manipulation. Simultaneously, the RNN is utilized to model temporal dependencies across frames, discerning subtle inconsistencies in facial movements over time. By integrating both spatial and temporal information, our hybrid model enhances the robustness and accuracy of deepfake detection. Experimental results demonstrate the efficacy of the proposed method in distinguishing authentic videos from deepfakes, showcasing its potential as a reliable tool in countering the rising threat of misinformation and deceptive content in the digital landscape. This innovative fusion of CNN and RNN contributes to the advancement of deepfake detection techniques, offering a more comprehensive solution to address the evolving challenges in multimedia forensics. Fake image detection is a critical challenge in the field of computer vision and machine learning. As the use of manipulated images for deception, propaganda, and misinformation becomes increasingly common, reliable methods for identifying fake content are essential. In this paper, we propose an effective machine learning approach for detecting fake images. In conclusion, machine learning methods hold great promise for unmasking fake images, contributing to a more trustworthy digital landscape. Our results underscore the potential impact of this approach in combating misinformation and ensuring the authenticity of visual content.

Keywords:

DeepFake - CNN (Convolutional Neural Network) - RNN (Recurrent Neural Network) - Image Processing - Data Augmentation-Training & Validation - Overfitting & Underfitting - Synthetic media analysis.

A project report on
AN INTELLIGENT SYSTEM FOR POTATO BLIGHT
DETECTION USING DEEP LEARNING

Submitted in partial fulfilment of the requirements for award of the degree of
BACHELOR OF TECHNOLOGY

In
COMPUTER SCIENCE AND ENGINEERING

By
K.HARISH
(21U45A0507)

P.TEJA
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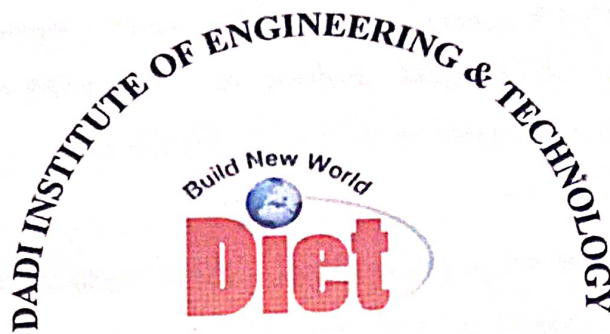


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NH-16, Anakapalle - 531002, Visakhapatnam, A.P.

(2020-2024)



DEPARTMENT OF
NAME OF THE DEPARTMENT

CERTIFICATE

This is to certify that the project report entitled "AN INTELLIGENT SYSTEM FOR POTATO BLIGHT DETECTION USING DEEP LEARNING" submitted by K.HARISH (21U45A0507), H.HEMANTHKUMAR(21U45A0512), P.TEJA(21U45A0503), D.ABHI(21U45A0508). In partial fulfilment of the requirements for award of the Degree of Bachelor of Technology in Name of the Department, from Dadi Institute of Engineering & Technology(A), Anakapalle affiliated to JNTUGV, accredited by NAAC with 'A' grade is a record of bonafide work carried out by them under my guidance and supervision.

maidu 18/4/24
PROJECT GUIDE

Ch-Bindhumadhuri
EXTERNAL EXAMINER

18/4/24
HEAD OF THE DEPARTMENT
Head of the Department
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Anakapalle-531002

ABSTRACT

Each year, farmers who plant potatoes incur substantial financial losses owing to a few Potato plant diseases that are affecting the plants. Early and late Blight caused by fungus and specific microorganism are the most common diseases. A significant saving of waste and avoiding economic losses can be achieved by early detection and appropriate treatment. Nevertheless, due to its time-consuming nature and the risk of errors, conventional visual inspection methods are not suitable for this purpose. We propose a Convolutional Neural Network (CNN) to address this problem. In the field of image classification, CNNs are a widely used type of deep learning algorithm. It is designed to be suitable for plant disease diagnosis by automatically learning features from the input image data. We've got a smaller trainable parameter with our customized CNN, which shortens computation time and reduces information loss. Several convolutional and pooling layers were used, followed by fully connected layers for ReLU activation function. We also applied dropout regularization to prevent overfitting. In conclusion, preventing economic losses requires an accurate and effective diagnosis of plant diseases. Our customized CNN model for plant disease diagnosis has the potential to be an effective tool for farmers. This can help them diagnose and manage plant diseases quickly and accurately, leading to early treatment and a reduction in losses.

Keywords: Potato Blight, Deep learning, Convolutional Neural Network, Disease Detection, Image Processing.

A project report on
Sign Language Recognition Using Machine
Learning

Submitted in partial fulfillment of the requirements for the award of the degree of
BACHELOR OF TECHNOLOGY

In

COMPUTER SCIENCE & ENGINEERING

By

D.HEMASREE
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(20U41A0585)

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Assistant Professor,

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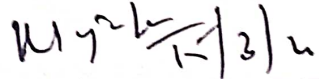


DEPARTMENT OF COMPUTER SCIENCE ENGINEERING

CERTIFICATE

This is to certify that the project report entitled "Sign Language Recognition Using Machine Learning" submitted by D.HemaSree(20U41A0514),K.Divya Sree(20U41A0585), M.Lavanya (20U41A0517), P.Ajay Satya Sai Pavan(20U41A0536). In partial fulfillment of the requirements for the award of the Degree of Bachelor of Technology in the Department of Computer Science & Engineering, from Dadi Institute of Engineering & Technology(A), Anakapalle affiliated to JNTUGV, accredited by NAAC with 'A' grade is a record of bonafide work carried out by them under my guidance and supervision.


PROJECT GUIDE


HEAD OF THE DEPARTMENT
Head of the Department
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Anakapalle-531002

Ch. Bindhumadhuri
EXTERNAL EXAMINER

ABSTRACT

Sign language, a vibrant and complex visual language, serves as the primary communication tool for individuals within the deaf and hard-of-hearing communities. However, bridging the gap between sign language and spoken languages often presents a significant challenge. This is a web application built for real-time sign language interpretation and text-to-sign conversion. It utilizes libraries like Flask, Django, OpenCV (cv2), and Mediapipe for various functionalities. The application detects hand landmarks and gestures from webcam input using Mediapipe and (CNN) enabling real-time processing. It employs a pre-trained machine learning model (SVM) to recognize sign language gestures, continuously updating and displaying the interpreted signs. With a user-friendly web interface, it offers routes for live video capturing, text-to-sign conversion, project information, and team details. The text-to-sign feature allows users to input text and receive corresponding sign language images, enhancing accessibility and communication. This application addresses communication barriers for the deaf and hard-of-hearing community, fostering inclusivity and understanding across linguistic modalities.

Keywords: CNN (Convolutional neural networks), SVM(Support Vector Machine), Flask, Django, OpenCV.

A project report on
Forecasting House Prices

Submitted in partial fulfillment of the requirements for award of the degree of
BACHELOR OF TECHNOLOGY

In

COMPUTER SCIENCE & ENGINEERING

By

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ENGINEERING**

CERTIFICATE

This is to certify that the project report entitled "Forecasting House Prices" submitted by P. Lokesh(20U41A0548), S.SaiAdharsh(20U41A0565), B.SriTeja(20U41A0553),G.Pravallika(20U41A0546).In partial fulfilment of the requirements for award of the Degree of **Bachelor of Technology** in Name of the Department, from Dadi Institute of Engineering & Technology(A), Anakapalle affiliated to JNTUGV, accredited by NAAC with 'A' grade is a record of bonafide work carried out by them under my guidance and supervision.

S. S. S. S.
PROJECT GUIDE

M. K. T. U. L.
HEAD OF THE DEPARTMENT

Head of the Department
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Anakapalle-531002

Ch. Bindhumadhuri
EXTERNAL EXAMINER

ABSTRACT

This project is centered on predicting house prices in Boston through the application of multivariate regression, a machine learning algorithm. By examining the Boston Housing dataset and incorporating diverse features such as crime rate, highway accessibility, and property tax rates, the objective is to construct a precise and interpretable forecasting model. The primary methodology involves the utilization of multivariate regression, which concurrently considers multiple factors, aiming to enhance model accuracy and elucidate the intricate influences on housing prices. In tandem with multivariate regression, advanced techniques like ensemble methods and regularization are explored to bolster the model's robustness. The analysis also integrates spatial and temporal dimensions by leveraging geospatial data and time-series techniques, with the intention of unveiling spatial dependencies and temporal trends. Model performance is thoroughly assessed through cross-validation techniques, ensuring reliability and generalizability. Comparative analyses with other regression models validate the efficacy of multivariate regression in capturing the complex relationships within the dataset. This research seeks to contribute to housing market forecasting by emphasizing the practical application of multivariate regression, offering valuable insights for real estate stakeholders and providing a data-driven foundation for decision-making and planning in the dynamic Boston housing market.

Keywords: Advanced Machine Learning, Multivariate, Regression, Spatial, Comparative

A project report on

Mobile Price Classification using KNN

Submitted in partial fulfilment of the requirements for award of the degree of

BACHELOR OF TECHNOLOGY

In

COMPUTER SCIENCE AND ENGINEERING

By

K. PRAVALLIKA

(20U41A0532)

S. DEEPTHI
(20U41A0530)

CH. TEJASWINIVARMA
(20U41A0516)

K.V.SAIKUMAR
(20U41A0505)

Under the Esteemed guidance of

P. NEERAJA

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DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING

DADI INSTITUTE OF ENGINEERING & TECHNOLOGY
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(2020-2024)



DEPARTMENT OF
COMPUTER SCIENCE AND ENGINEERING

CERTIFICATE

This is to certify that the project report entitled “**Mobile Price Classification using KNN**” submitted by K. Pravallika (20U41A0532), S. Deepthi (20U41A0530), CH. Tejaswini varma (20U41A0516), K.N. Saikumar (20U41A0505). In partial fulfilment of the requirements for award of the Degree of **Bachelor of Technology in Computer Science and Engineering**, from Dadi Institute of Engineering & Technology(A), Anakapalle affiliated to JNTUGV, accredited by NAAC with 'A' grade is a record of bonafide work carried out by them under my guidance and supervision.

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EXTERNAL EXAMINER

ABSTRACT

The main purpose of our project was distinct to determine "If the phone with the characteristics I want is within a specific price range." Feature selection techniques are used to identify and remove features were no longer needed or redundant, and have a low computational complexity. To attain the highest level of accuracy, many classifiers are used. The correctness of the results is judged in terms of selecting the fewest attributes possible. The claim is based on the finest feature classification algorithm and best classifier for the provided datasets. This approach can be applied to some type of marketing or sector to identify the best products (with the least amount of expense and the most features). When buying cell phones people fail to make the right decisions due to various factors like memory, display, battery, camera, etc. the most sensitive piece of technology is a smart phone. This project is designed to predict the correct price range for phones based on its features. Among the five classifiers chosen, Naive bayes, Decision tree model, Random forest, Gradient Boosting and K-Nearest Neighbors algorithm had highest accuracy of 92%. Hence we have used the K-Nearest Neighbors algorithm to train the model and classify output such as low, medium, high or high.

Keywords: Naive bayes, Decision tree model, Random forest, Gradient Boosting and K-Nearest Neighbors algorithm.

A project report on
ONLINE TRANSACTION FRAUD DETECTION
USING MACHINE LEARNING

Submitted in partial fulfillment of the requirements for award of the

degree of
BACHELOR OF TECHNOLOGY

In
COMPUTER SCIENCE ENGINEERING

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(20U41A0507)

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DEPARTMENT OF
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CERTIFICATE

This is to certify that the project report entitled "Online transaction fraud detection using machine learning" submitted by B. Dilip(20U41A0506), K. Vinay (20U41A0507), S. Lahari(20U4A0513), P.D.S.S.L. Padmavathi (20U41A0552) . In partial fulfilment of the requirements for award of the Degree of Bachelor of Technology in Department of Computer Science & Engineering, from Dadi Institute of Engineering & Technology(A), Anakapalle affiliated to JNTUGV, accredited by NAAC with 'A' grade is a record of bonafide work carried out by them under my guidance and supervision.

Shanika

PROJECT GUIDE

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Ch. Bindhumadhuri
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ABSTRACT

Now a days the Online transaction fraud detection has become increasingly critical in the digital age as more financial transactions are conducted over the internet. This paper explores various methodologies and techniques employed in the detection and prevention of fraudulent activities in online transactions. The abstract encompasses an overview of traditional methods such as rule-based systems, anomaly detection, and machine learning algorithms like neural networks, decision trees, and support vector machines, which are commonly utilized to analyse transaction data and detect suspicious patterns. Furthermore, advancements in technology, including the integration of big data analytics, artificial intelligence, and deep learning, have significantly enhanced the accuracy and efficiency of fraud detection systems. Additionally, the abstract discusses challenges such as imbalanced datasets, evolving fraud patterns, and the need for real-time detection capabilities. Moreover, it explores the importance of collaboration among financial institutions, regulatory bodies, and law enforcement agencies to combat online transaction fraud effectively. The abstract concludes by highlighting the ongoing research efforts and future directions aimed at developing more robust and adaptive fraud detection mechanisms to safeguard digital transactions and protect consumers' financial assets in the evolving landscape of cyber threats.

KEYWORDS: KNN, Decision tree ,Random Forest, SVM, SMOTE , Logistic regression XGBoost

A Project Report On
SLEEPING DISORDER PREDICTION USING
MACHINE LEARNING

Submitted in partial fulfillment of the requirements for award of the degree of

BACHELOR OF TECHNOLOGY

In

COMPUTER SCIENCE & ENGINEERING

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This is to certify that the project report entitled "SLEEPING DISORDER PREDICTION USING MACHINE LEARNING" submitted by K. HARSHITA (20U41A0543), K. PAVAN SAI KUMAR (20U41A0501), M. MANIDEEPAK (20U41A0542), N. MOUNIKA (20U41A0572), K. BHAGYA SRI (20U41A0574). In partial fulfillment of the requirements for award of the Degree of Bachelor of Technology in **COMPUTER SCIENCE & ENGINEERING**, from Dadi Institute of Engineering & Technology(A), Anakapalle affiliated to JNTUGV, accredited by NAAC with 'A' grade is a record of bonafide work carried out by them under my guidance and supervision.

T. S. Lakshmi
PROJECT GUIDE

Ch. Bindhumadhuri
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M. S. Lakshmi
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ABSTRACT

Sleep disorders are a major public health problem, affecting millions of people worldwide. They can have a significant impact on an individual's health and wellbeing, leading to fatigue, decreased productivity, and increased risk of accidents and chronic diseases. The main objective of this data science project is to analyze various lifestyle and medical variables of individuals, such as age, BMI, physical activity, sleep duration, blood pressure, etc., and use this information to predict the occurrence and type of sleep disorder they may experience. Sleep disorders, like Insomnia and Sleep Apnea, can have significant impacts on an individual's health and overall well-being. The development of this predictive model has the potential to improve the early detection and treatment of sleep disorders. The potential impact of the project, such as the number of people who could be identified as being at risk of sleep disorders, or the cost savings that could be realized by early detection and treatment. By identifying individuals at risk of sleep disorders, appropriate interventions and treatments can be provided to improve their sleep quality and overall health.

Keywords: Sleep disorders, Data science, Predictive model, Risk factors and Early detection.

A Project report on

VISIONFORCODE ON UI DESIGNING

Submitted in partial fulfillment of the requirements for award of the degree of

BACHELOR OF TECHNOLOGY

In

COMPUTER SCIENCE ENGINEERING

by

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NH-16, Anakapalle – 531002, Visakhapatnam, A.P.

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A Project report on

VISIONFORCODE ON UI DESIGNING

Submitted in partial fulfillment of the requirements for award of the degree of

BACHELOR OF TECHNOLOGY

In

COMPUTER SCIENCE ENGINEERING

by

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This is to certify that the project report entitled “**VisionforCode On UI Designing**” submitted by D. Ganesh (21U45A0509), S. Chandrasekhar (21U45A0501), R.Shushma (20U41A0559), N. Nikhitha (20U41A05A7). In partial fulfillment of the requirements for award of the Degree of **Bachelor of Technology in Department of Computer Science & Engineering**, from **Dadi Institute of Engineering & Technology(A)**, Anakapalle affiliated to **JNTUGV**, accredited by NAAC with 'A' grade is a record of bonafide work carried out by them under my guidance and supervision.

P. Sreevatsa
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HEAD OF THE DEPARTMENT

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EXTERNAL EXAMINER

ABSTRACT

The VisionforCode On UI Designing project represents an innovative solution that bridges the gap for design in web and app development. A developer's typical role is to convert a designer's graphical user interface screenshot into computer code so that websites, mobile applications, and customized software may be built. In this research, we demonstrate how deep learning techniques may be used to train a model end-to-end, producing code for three distinct platforms automatically from a single input image.

Traditional web and app development processes often involve a significant amount of time and effort to translate design concepts into code. VisionforCode aims to streamline this process, making it faster and more accessible to designers and developers alike. Extracting key design elements, such as buttons, text fields, and images. The resulting code is responsive, adaptable to different screen sizes, and well-structured, meeting modern web and app development standards.

Keywords: Computer vision, CenterNet Algorithm, image-to-code, design interpretation, UI/UX automation, and prototyping from sketches.

A project report on
Traffic Sign Detection and Recognition

Submitted in partial fulfillment of the requirements for award of the degree of

BACHELOR OF TECHNOLOGY

In

COMPUTER SCIENCE ENGINEERING

By

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This is to certify that the project report entitled "Traffic Sign Detection and Recognition" Submitted by Y.Yasasvi (20U41A0575), B.Bhavitha (20U41A0561), A.Kusuma (20U41A0580), K.Madhuri Latha (20U41A0577). In partial fulfillment of the requirements for award of the Degree of Bachelor of Technology in Computer Science Engineering, from Dadi Institute of Engineering & Technology(A), Anakapalle affiliated to JNTU-GV, accredited by NAAC with 'A' grade is a record of bonafide work carried out by them under my guidance and supervision.

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Ch. Bindhu Madhavi
EXTERNAL EXAMINER

ABSTRACT

Traffic sign detection is a crucial component of modern transportation systems, contributing to road safety, driver assistance and autonomous driving technologies. In this project, we propose a real-time traffic sign detection system based on YOLO, a state-of-the-art object detection model renowned for its speed and accuracy. The YOLO model is employed to detect traffic signs in real-time video streams captured by onboard vehicle cameras or fixed surveillance systems. By leveraging the efficiency of YOLO, our system achieves high detection accuracy while maintaining low latency, making it suitable for time-critical applications such as autonomous driving.

Traffic sign detection and recognition play a pivotal role in intelligent transportation systems, enhancing road safety and facilitating autonomous driving. Various methodologies including traditional computer vision approaches and deep learning-based methods are discussed, highlighting their strengths, limitations and areas for improvement. Traffic sign detection is an important aspect of autonomous vehicles, this helps in avoiding accidents. In this project, a deep learning model is implemented with YOLO's (You Look Only Once) latest version YOLOv4. YOLO is one of the fastest object detection algorithms for real-time detection. In YOLOV4, CSPDarknet54 is used which acts as the backbone, this promotes the learning capability of CNN. We prepared two models, one that was trained on the Indian dataset and another on an independently made dataset.

A project report on
PRE-OWNED CAR PRICE PREDICTION USING
MACHINE LEARNING TECHNIQUE

Submitted in partial fulfillment of the requirements for award of the degree of
BACHELOR OF TECHNOLOGY

In

COMPUTER SCIENCE ENGINEERING

By

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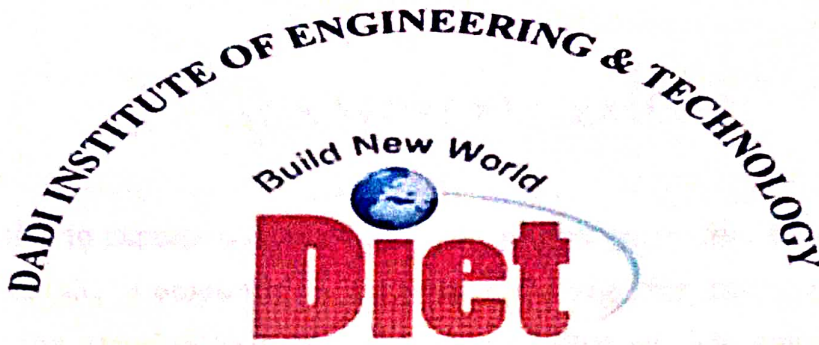
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NH-16, Anakapalle – 531002, Visakhapatnam, A.P

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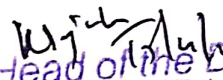


**DEPARTMENT OF
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CERTIFICATE

This is to certify that the project report entitled "PRE-OWNED CAR PRICE PREDICTION USING MACHINE LEARNING " submitted by D.Pravallika (20U41A0520), G.Durgabhavani (20U41A05096), Pooja Kumari (20U41A0504), M.Kiranmaye (20U41A0524). In partial fulfillment of the requirements for award of the Degree of Bachelor of Technology in Computer Science Engineering, from Dadi Institute of Engineering & Technology(A), Anakapalle affiliated to JNTUGV, accredited by NAAC with 'A' grade is a record of bonafide work carried out by them under my guidance and supervision.


PROJECT GUIDE


HEAD OF THE DEPARTMENT
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Anakapalle-531002

Ch. Bindhumadhuri
EXTERNAL EXAMINER

ABSTRACT

In this fast-moving generation, the present study proposes the newer concept of predicting the prices of certain items. With an idea and motivation to help everyone we came up with a solution to get an appropriate estimate of one's car using Machine Learning Techniques which will save a lot of time and money . Approximately 40 million used cars are sold each year. Effective pricing strategies can help any company to efficiently sell its products in the competitive market and make profit . In the automotive sector, Therefore, arises a need for a model that can assign a price for a vehicle by evaluating its features taking the prices of other cars into consideration. In this , we use supervised learning methods to predict the prices of used cars. So, we propose a methodology using Machine Learning models to predict the prices of used cars given the features. The price is estimated based on the number of features as kilometers driven , car purchase year , Car Company, Car model, and the fuel type. Linear Regression and Gradient Boosting Regressor are used efficiently to build this model.

Keywords: Machine Learning , Linear Regression , pricing strategies, Gradient Boosting Regressor.

A project report on

**DETECTION OF CHRONIC KIDNEY DISEASE
USING MACHINE LEARNING**

Submitted in partial fulfillment of the requirements for award of the
degree of

BACHELOR OF TECHNOLOGY

In

COMPUTER SCIENCE ENGINEERING

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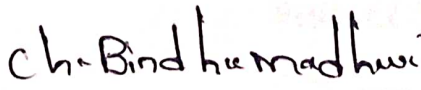


DEPARTMENT OF
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This is to certify that the project report entitled “**Detection of chronic kidney disease using machine learning**” submitted by D.Purushotham (20U41A0528), S.Sai (20U41A0510), G.N.S.S.SriLakshmi (20U41A0512), D.Harshavardhan (20U41A0531),. In partial fulfilment of the requirements for award of the Degree of **Bachelor of Technology in Department of Computer Science & Engineering**, from Dadi Institute of Engineering & Technology(A), Anakapalle affiliated to JNTUGV, accredited by NAAC with 'A' grade is a record of bonafide work carried out by them under my guidance and supervision.


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ABSTRACT

Chronic Kidney Disease is a long-term, progressive condition characterized by the gradual loss of kidney function over time. The kidneys are vital organs responsible for filtering waste products, excess fluids, and toxins from the blood, and they also help regulate electrolyte levels and blood pressure. Since there is no obvious symptoms during the early stage of chronic kidney disease, patients often fail to notice the disease. So main aim is "Early detection of chronic kidney disease which helps for patients to receive timely treatment". In this study, proposed a Machine learning methodology for diagnosing chronic kidney disease. Machine learning models can effectively achieve this goal in which the models helps to predict accurate results based on Machine learning algorithms. In this, values is trained by using dataset for using multiple machine learning models which follows "Ensemble learning" i.e Knn, Decision tree classifier, Extra tree classifier, Random forest classifier. Among all machine learning models, the "Random forest classifier" is the most accurate machine learning model with an accuracy of (99%), and it trains the data quite effectively. This algorithm is used to deploy our model. The kidney illness patient's will get correct results are predicted by this model, and the results will assist individuals in recognizing the disease for early & better to receive the treatment in a timely manner.

Keywords : Chronic Kidney Disease, knn, Decision tree, Extra tree Classifier and Random Forest Classifier

A Project report on
Brain Stroke Prediction Using Machine Learning

Submitted in partial fulfilment of the requirements for award of the degree of

BACHELOR OF TECHNOLOGY

In

Computer Science & Engineering

By

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(2020-2024)



DEPARTMENT OF COMPUTER SCIENCE & ENGINEERING

CERTIFICATE

This is to certify that the project report entitled "Brain stroke Prediction using Machine Learning" submitted by Y. Divya (20U41A0534), R. Lokesh(20U41A0595), K. Sai Prasoon(20U41A0527), M. Bindhu Madhavi (20U41A0529). In partial fulfilment of the requirements for award of the Degree of Bachelor of Technology in COMPUTER SCIENCE & ENGINEERING, from Dadi Institute of Engineering & Technology(A), Anakapalle affiliated to JNTUGV, accredited by NAAC with 'A' grade is a record of Bonafide work carried out by them under my guidance and supervision.

Shankar

PROJECT GUIDE

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EXTERNAL EXAMINER

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ABSTRACT

Brain stroke, a leading cause of disability and mortality worldwide, necessitates effective predictive models for early identification and intervention. This review explores the landscape of predictive modelling techniques employed in assessing brain stroke risk, aiming to enhance understanding and foster advancements in stroke prevention strategies.

The document encompasses an extensive examination of various predictive factors, including demographic data, medical history, lifestyle factors, and genetic predispositions, contributing to stroke occurrence. Machine Learning algorithms, such as logistic regression, support vector machines, random forests, and deep learning architectures, are evaluated for their efficacy in stroke risk prediction. Furthermore, the integration of advanced imaging techniques, biomarkers, and wearable sensor data into predictive models is discussed to enhance accuracy and precision.

Key challenges and limitations encountered in the development and deployment of stroke prediction models, such as data availability, model interpretability, and generalizability across diverse populations, are addressed. Additionally, ethical considerations regarding patient privacy, data security, and algorithmic bias are highlighted.

Future directions in stroke prediction research are proposed, emphasizing the need for interdisciplinary collaborations, large-scale longitudinal studies, and the integration of emerging technologies like artificial intelligence and precision medicine. Ultimately, the advancement of predictive models for brain stroke risk assessment holds profound implications for public health, clinical practice, and healthcare policy, facilitating timely interventions and improving patient outcomes.

Keywords: Stroke risk assessment, Predictive modelling, Risk factors, Machine Learning, Demographic data, medical history, Lifestyle factors, Genetic predispositions

A project report on
**EMOTION-BASED MUSIC RETRIEVAL
USING DEEP LEARNING TECHNIQUE**

Submitted in partial fulfillment of the requirements for award of the degree of

BACHELOR OF TECHNOLOGY

In

COMPUTER SCIENCE ENGINEERING

By

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DEPARTMENT OF COMPUTER SCIENCE & ENGINEERING

DADI INSTITUTE OF ENGINEERING & TECHNOLOGY

(AN AUTONOMOUS INSTITUTE)

(Approved by A.I.C.T.E., New Delhi & Permanently Affiliated to JNTU GV)

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NH-16, Anakapalle – 531002, Visakhapatnam, A.P.

(2020-2024)




DEPARTMENT OF
COMPUTER SCIENCE & ENGINEERING

CERTIFICATE

This is to certify that the project report entitled “EMOTION-BASED MUSIC RETRIEVAL USING DEEP LEARNING TECHNIQUE” submitted by G.Chandrakala (20U41A0519), P.Gayatri (20U41A0503), M.Tharun Rama Appala Naidu (20U41A0535), B.Likhitha (20U41A0518). In partial fulfillment of the requirements for award of the Degree of **Bachelor of Technology in Computer Science Engineering**, from Dadi Institute of Engineering & Technology(A), Anakapalle affiliated to JNTUGV, accredited by NAAC with 'A' grade is a record of bonafide work carried out by them under my guidance and supervision.


PROJECT GUIDE


HEAD OF THE DEPARTMENT
Head of the Department
Computer Science & Engg.
Dadi Institute of Engg. & Tech
Anakapalle-531002

Ch. Bindhu madhusri
EXTERNAL EXAMINER

ABSTRACT

Human feelings are not constant and they are actually a consequence of internal and external circumstances happening around an individual. Extensive research and investment have been made on human emotions which can lead to a variety of applications. The current system consists of automatically creating a music playlist based on the genres, artists, etc. Yet another option is manually organizing music files into playlists. Recent problems involve multiple frequency estimation and music similarity computation. A QBSH (Query by singing and humming) system determines a song by using its contents (tune and rhythm). However, the problem revolving around this option is that they are time-consuming and do not always satisfy the user. In the existing system, the emotion of the user is not taken into consideration. Since emotions play a crucial role in day-to-day activities, a music recommendation system can be developed that takes human emotions into account. By identifying the emotion of an individual, suitable music can be recommended. The system aims at examining the data provided by identifying the emotion of the user. A deep-learning (CNN) algorithm is applied to classify the various emotions, after which labels are generated, and suitable music is played. The proposed system has delivered results with significant accuracy.

Keywords: FER 2013 Data set, Convolutional Neural Network (CNN) algorithm, using basicMachine learning (ML) packages such as Open CV, Keras, and TensorFlow.

A project report on

Text Extraction from Video Images

Submitted in partial fulfillment of the requirements for award of the degree of

BACHELOR OF TECHNOLOGY

In

COMPUTER SCIENCE & ENGINEERING

By

Paila Yaswathi

(20U41A0515)

Pentakota Anil Kumar

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(20U41A0545)

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NH-16, Anakapalle – 531002, Visakhapatnam, A.P.

(2020-2024)



DEPARTMENT OF
COMPUTER SCIENCE AND ENGINEERING

CERTIFICATE

This is to certify that the project report entitled "Text Extraction from Video Images" submitted by Paila Yaswathi(20U41A0515), Bheesetty Tejaswini (20U41A0545), Gannem Prajna Jyothi (20U41A0586), Pentakota Anil Kumar (20U41A0583). In partial fulfillment of the requirements for award of the Degree of Bachelor of Technology in Name of the Department, from Dadi Institute of Engineering & Technology(A), Anakapalle affiliated to JNTUGV, accredited by NAAC with 'A' grade is a record of bonafide work carried out by them under my guidance and supervision.

B. C. P. L. W. L.
PROJECT GUIDE

K. S. J. S. / 15/4/20
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Ch. Bindhumadhuri
EXTERNAL EXAMINER

ABSTRACT

In contemporary society, the wealth of information encapsulated within videos has become increasingly significant. Videos serve as a rich repository of data, offering a multisensory experience through visuals and sounds. Within the visual domain, critical information is often conveyed through the dynamic motion of objects, on-screen text, and various visual elements. However, a common challenge arises when we seek to access and manipulate specific textual information embedded in videos. Pausing the video to extract and work with the text is a cumbersome process, compounded by the fact that the extracted text is typically not in an editable form. Recognizing this need, the following discussion outlines a solution leveraging Deep Learning techniques to efficiently extract text from videos and seamlessly save it as an editable document.

To address the task of extracting text from video images, cutting-edge OCR (Optical Character Recognition) technologies, such as Keras_OCR, play a pivotal role. OCR algorithms are employed to recognize and convert textual information present in images, including video frames, into machine-readable and editable formats. Keras_OCR, for instance, harnesses the power of Keras OCR and provides a Python interface, enabling the extraction of text from images, including those derived from video frames. Similarly, Keras_OCR utilizes deep learning models to perform OCR on images, contributing to enhanced accuracy and efficiency in text extraction from videos. By integrating these OCR technologies into a cohesive framework, this approach not only facilitates the extraction of textual content from videos but also empowers users to save this information in a document format, allowing for further editing and analysis.

Keywords: Text Extraction [1], OCR Technology, PyTesseract [4], Keras_OCR [5],
Frames [2]

**A project report on
Rice Leaf Disease Detection Using Deep Learning**

Submitted in partial fulfilment of the requirements for award of the degree of

BACHELOR OF TECHNOLOGY

In

Computer Science and Engineering

By

P Sai Kumar

(21U45A0505)

**B Sai Kumar
(21U45A0510)**

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NH-16, Anakapalle – 531002, Visakhapatnam, A.P.

(2020-2024)



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This is to certify that the project report entitled “**Rice Leaf Disease Detection using Deep learning**” submitted by P. Sai Kumar (21U45A0505), B. Sai Kumar (21U45A0510), CH C.N.S Manikanta Kumar (21U45A0519), P. Venkateswararao (20U41A05A2). In partial fulfilment of the requirements for award of the Degree of **Bachelor of Technology in Computer Science and Engineering**, from Dadi Institute of Engineering & Technology(A), Anakapalle affiliated to JNTUGV, accredited by NAAC with 'A' grade is a record of bonafide work carried out by them under my guidance and supervision.

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PROJECT GUIDE

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18/4/20
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Ch. Bindhumadhuri
EXTERNAL EXAMINER

ABSTRACT

Rice is one of the most important staple crops worldwide, but its production is often hampered by various diseases affecting the rice plant, such as brown spot, leaf smut, and bacterial leaf blight. Early detection and treatment of these diseases are crucial for ensuring a healthy rice crop and maintaining food security. In this project, we propose a system for rice leaf disease detection using deep learning techniques. The system allows users to upload an image of a diseased rice leaf to a website, which then processes the image using a trained deep learning model to identify the disease present on the leaf. Additionally, the system provides recommendations for pesticides that can be used to treat the identified disease, based on the type of disease detected. This project aims to assist farmers and agricultural workers in quickly identifying and treating diseases in their rice crops, thereby reducing crop losses and improving overall agricultural productivity. The system's user-friendly interface makes it accessible to a wide range of users, including those with limited technical knowledge.

Keywords: Convolutional Neural Network, Deep Learning, image processing, agricultural productivity, pesticide recommendation