VISVESVARAYA TECHNOLOGICAL UNIVERSITY

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A Mini Project Synopsis
on

"INSTAGRAM FAKE ACCOUNT DETECTION"

SUBMITTED FOR THE REQUIREMENT OF THE VI SEMESTER
MINI PROJECT (21ISMP67)

BACHELOR OF ENGINEERING
in
INFORMATION SCIENCE & ENGINEERING

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ABSTRACT

Social media plays a crucial role in our lives by creating connections, sharing information, and allowing people to find what they're looking for, whether it's an entertaining video or a new household product. Additionally, it provides a platform for individuals to share exciting news, pictures, and videos with family and friends, bridging distances. These days spam accounts have become a major problem in in all the social media platforms. Many users are creating fake accounts to create an illusion of having many followers to their personal accounts. Fake accounts are being created to sell fake products and services. They are also being used to impersonate other account users from common people to celebrities in order to influence, criticize, hurt feelings and reputation.

INTRODUCTION

Detecting fake accounts on Instagram is crucial to ensure the safety and privacy of its users. With the platform's immense popularity, the presence of fake profiles and scammers has grown. These accounts can be used for malicious purposes, such as spreading misinformation, phishing, or identity theft. Machine learning models can help address this issue by classifying accounts as real or fake.

This project aim is to build and train a deep neural network model to detect fake or spam Instagram accounts. There are few key input features which we considered to determine if the account is fake or not.

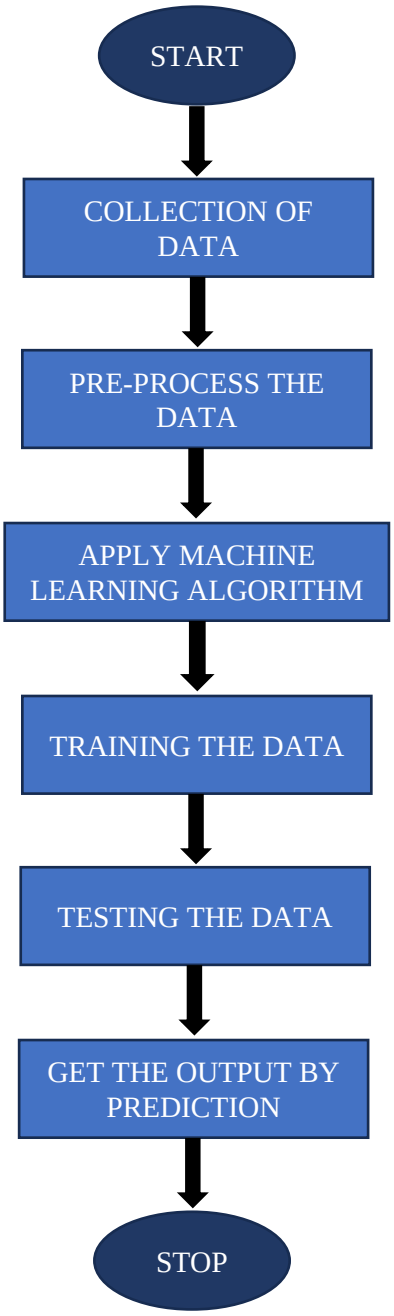
The Input Features are:

- **Profile Picture -** The user has profile picture or not.
- **Nums/Length Username -** The ratio of number of numerical chars in username to its length.
- **Fullname Words -** Full name in word tokens
- **Name/Length of Full Name -** The ratio of number of numerical characters in full name to its length.
- **Name = = Username -** Are username and full name literally the same?
- **Description Length -** Bio length in characters.
- **External URL -** Has external URL or not.
- **Private -** Private or not.
- **Posts -** Number of posts.
- **Followers -** Number of followers.
- **Follows -** Number of follows.

SCOPE OF THE PROJECT

The project titled “Instagram Fake Account Detection” involves building and training a deep neural network model to identify fake or spam Instagram accounts. These days, spam accounts have become a significant issue across social media platforms. Users create fake accounts to inflate follower counts, sell counterfeit products, or impersonate others. This model is trained such that it considers the above given features and determines whether a particular account is fake or not. By resulting the output as either 0 or 1 meaning TRUSTED or FAKE respectively. Our intention is to make this software capable of thinking like a human, based on the data it is given and results in maximum probability of success.

METHODOLOGY



EXPECTED OUTCOME

The analysis of the dataset aims to provide a fairly accurate predictive model using Neural networks. The model is hence trained to detect fake accounts in Instagram based on the considered features. We aim to achieve around 85 percent accuracy to 97 percent accuracy in detecting the fake accounts by training the model using datasets. We have checked whether the model has reached the ability to detect an account is fake or not by inputting different set of data values which will be consisting n number of account details. And by using this, users can get aware directly rather than simply trusting or getting fooled by any means.