Prediction Model For Young Drug Abuse Using CNN

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Declaration

I declare that this dissertation is the result of my own independent work. Where I made reference to other people's work, I have indicated my acknowledgement to the sources.

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Abstract

Illicit drug abuse is now a major public health issue. In society, some people use drugs abuse. It is no secret that it is already very prevalent, especially among young people. Young people are turning to illegal drugs for a variety of reasons, and a number of different drugs are currently in use. Among them is the rapid spread of the illicit drug methamphetamine, or ice, which is seen as one of the most harmful of these drugs. It has already been found that there is a high prevalence of high addiction among young students in schools and higher education, as well as among various youth groups in other societies. Various organizations have pointed out that this has had a negative impact on Student's health and education. It's just as short-lived, it's long-lasting. A number of studies have already been conducted using a variety of techniques for this purpose, both successful and unsuccessful. In the world of picture data, convolutional neural network models are everywhere. They excel in computer vision tasks like as picture categorization, object identification, and image recognition, among others. In this study, discussed about the illicit drug, specifically as an ice or methamphetamine drug, and a proposal is made for a algorithm using convlutional neural network that can be used as an alternative. This suggested modal will be develop, specifically for younger's in order to detect their abuse, enhance their health, and gain more benefits. This study, using CNN technology, a widely used in-depth learning technology for solving image classification challenges, using long and short term changes in appearance based on evolutionary algorithms, Identify whether ice drugs have been used by people not included in the database, as drug users have pointed out above.

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List of Abbreviations

CNN	Convolutional Neural Network
GPU	Graphics Processing Unit
PCA	Principle Component Analysis
ReLU	Rectified Linear Unit
SVM	Support Vector Machines
VGG	Visual Geometry Group
AUC	Area under the Curve
ROC	Receiver Operator Characteristic
TPR	True Positive rate
FPR	False Positive rate
ASD	Autism Spectrum Disorder
GAN	Generative Adversarial Network
METH	Methamphetamine
DAD	Drug abuse detection
DNN	Deep Neural Network
ILSVRC	ImageNet LargeScale Visual Recognition Challenge
LBP	Local binary patterns
SNP	Single nucleotide polymorphism
LDA	Linear Discriminate Analysis