

# Stress Detection Based on social media Blogs

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## ABSTRACT

Major psychological health issues like stress, anxiety, etc. are a direct outcome of technology development and a huge increase in social media usage. It is possible to examine these problems and develop prevention plans. As a result of people's great desire to support SMEs, social media monitoring of blogs is essential to resolving these serious issues (Social Media Environments). Psychologists used conventional techniques like surveys and interviews, but these procedures are time-consuming and hysterical. In this paper, we reviewed a variety of stress detection techniques and discovered that they were unsuccessful for identifying stress in social media.

In this study, we presented a method for effectively detecting stress in people by utilising the ontology. Using the ontology for stress detection among people and recommending the essential safety measures to stop users from committing suicide is what we presented as an effective stress detection approach in this study. The term matching search method known as ontology is utilised in social media to more accurately detect communications shared by users that are connected to stress.

## KEYWORDS

Stress, SME, detection, and psychologists.

## 1. INTRODUCTION

People's stress levels are rapidly increasing as a result of their propensity to use social media. Persistent stress is a factor in many disorders, including anxiety-provoking mental health issues. Anxious people may occasionally even commit suicide. Psychological stress is becoming a significant concern to people as a result of people's social contact with others, particularly friends on comparable social platforms. A global internet game called "Blue Whale Challenge" intends to take countless lives, mostly those of children. Because they rely on respondents' responses, interviews, questionnaires, and other conventional methods of stress detection are time-consuming and stressful. Accurate results cannot be expected because participants may be experiencing anxiety. Recently, deep learning has displayed revolutionary performance in a variety of activities, including those involves images, where networks learn from a massive amount of datasets, automatically extract attributes from pictures, and use interconnected units to carry out difficult tasks. Ontologies is the branch of metaphysics that examines concepts of being. It is a description of knowledge that incorporates ideas unique to a given topic and the relationships between those ideas. The domain contains entities, attributes, laws, relationships, and axioms. Using the psychophysiology of the user, physiological computing can assess the user's psychological state. Deep-learning neural networks may also be used to look into a user's stress category using a single tweet and weekly tweets from the users. They are examined from the social media platform created to establish the intensity and duration of the user's stress. The amount of time they spend interacting with others on the internet.

## 1.1 OBJECTIVE

The major goal of this project is to develop an efficient system for identifying signs of stress in people and taking the appropriate action to keep users from committing suicide.

## 1.2 SCOPE

Future versions of this application might include the capability to recognize various emotions. With the updated data set, we plan to examine the prediction strategy and use the most precise and pertinent machine learning algorithms for detection.

## 2. RELATED WORK

Si.No	Title	Year of Publication	Author	Description
1.	A Dataset for Psychological Human Needs Detection from Social Networks	2017	R.Alharthi, B.Guithier, C.Guertin, and A.M.El Saddik	We give the annotated corpus's descriptive statistics. In order to identify individual demands and gauge their satisfaction, this corpus can be utilized to construct autonomous detection systems and prediction models.
2.	Framework for analyzing stress using Deep learning	2018	Arun Kumar S, Newby Das, Nishchitha D S, Ranjitha V, Sahana M R	To detect users' psychological stress, we provide a Deep Neural Network (DNN) model that combines the two categories of user-scope attributes. Our social network can be utilized to identify stress based on the user's interactions with his friends and how active he is on the social website.
3.	Detection of stress using Physiological sensors	2015	R.Sioni, L.Chittaro	It is particularly appealing to develop systems that can recognize stress through physiology, and not just for experimental studies.
4.	The truth behind online suicide game: Bluewhale	2009	Adeane	That is comparable to the statement made in old-school horror movies that they are "based on genuine events" in the online world. For a thread of plausibility runs through every successful ghost story.

5.	Sarcasm Detections in Sentiment Analysis	2016	Shruti Kaushik , Mehul P.Barot	Sarcasm in text plainly lacks these tonal and physical cues, making its recognition dependent on other elements.
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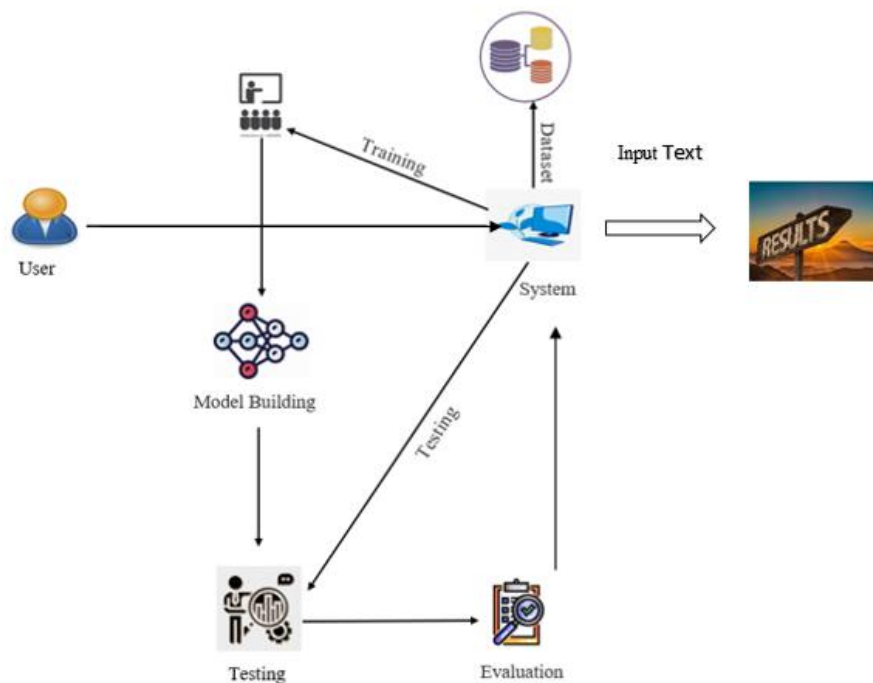
### 3. EXISTING SYSTEM

Machine learning is becoming more and more prevalent, with classical and machine learning approaches used in computer science. This section discusses relevant research on stress detection and how machine-learning techniques are superior to older ones. The project's current methodology follows a particular flow, and KNN is also utilized for model creation. However, the outcome is inaccurate and a lot of memory is needed.

### 4. PROPOSED SYSTEM

We suggest this application, which can be seen as a valuable system because it aids in reducing the constraints brought about by conventional and other existing ways. This project aims to create an efficient and dependable system for precisely detecting stress. We used a potent algorithm in a Python-based framework to design this system.

### 5. ARCHITECTURE



**FIG NO 5.1 ARCHITECTURE OF THE PROPOSED SYSTEM**

**MODULE:****1. User:**

1.1 Model Selection: The user chooses the model that the system recommends.

1.2 Input Text: To determine the desired result, the user must enter text.

1.3 See Results: The user has the option to view both the results and the system's created graph.

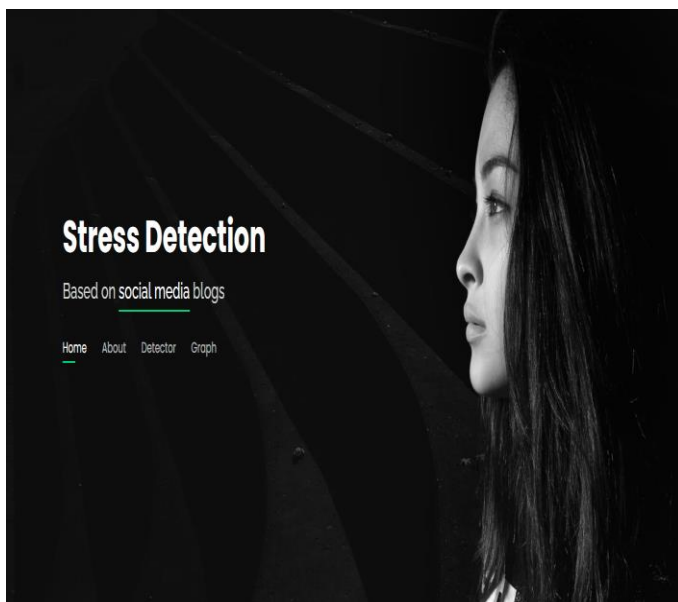
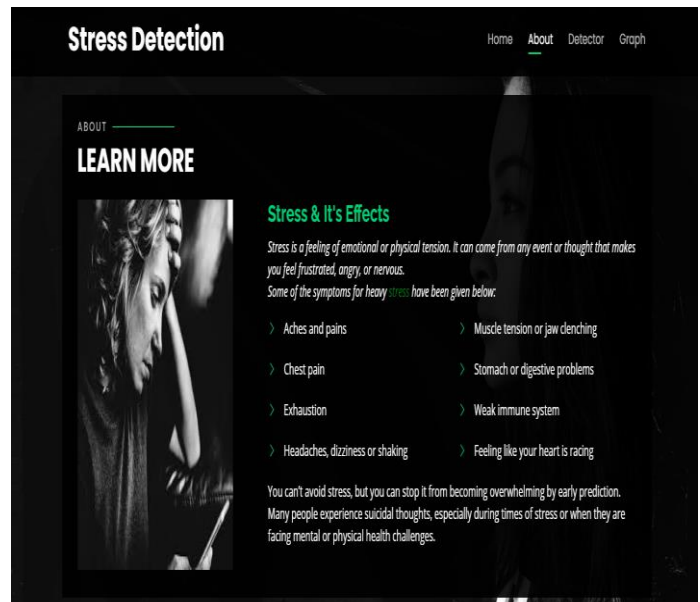
**2. System:**

2.1 Consider the dataset: The system builds models using the dataset that is given to it.

2.2 Preprocessing: The system works to infer any diseases in the data set and extract the characteristics during the preprocessing step.

2.3 Training: Using Python modules, the system creates the model from the dataset during the training phase.

2.4 Provide Results: The system produces the detection findings for the user, indicating whether the text being shown is stressed or not.

**6. RESULT****FIG 6.1 HOME PAGE****FIG 6.2 ABOUT PAGE**

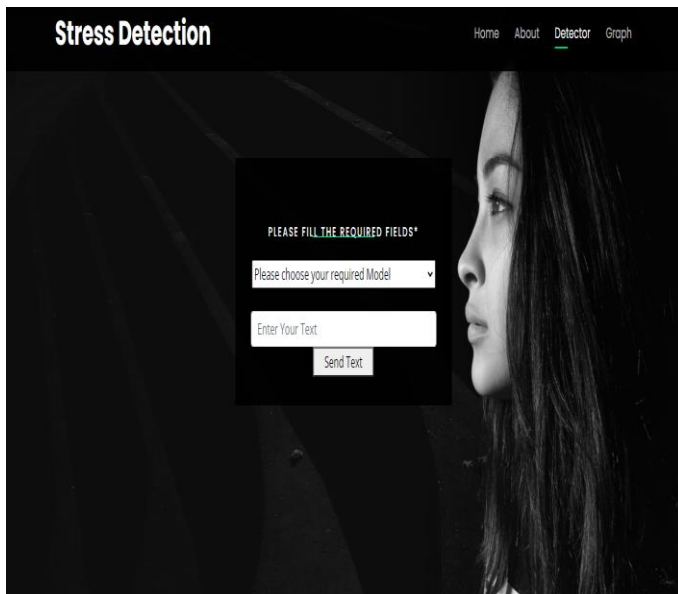


FIG 6.3 DETECTION PAGE (Before Submission)

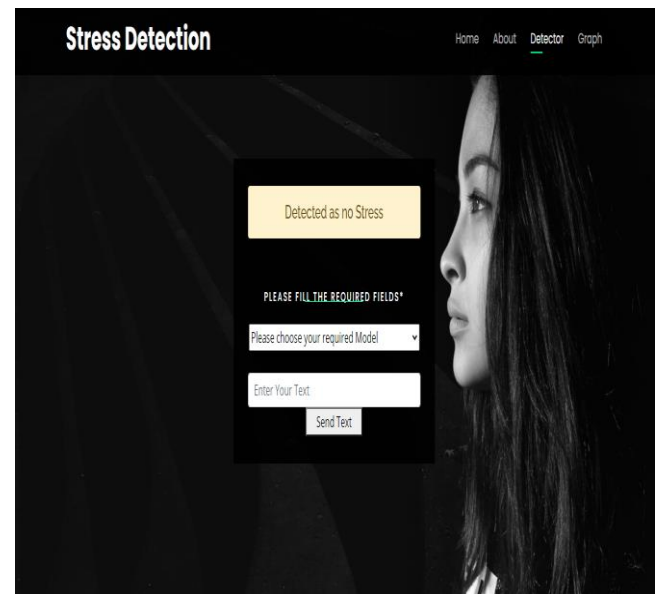


FIG 6.4 DETECTION PAGE (After Submission)

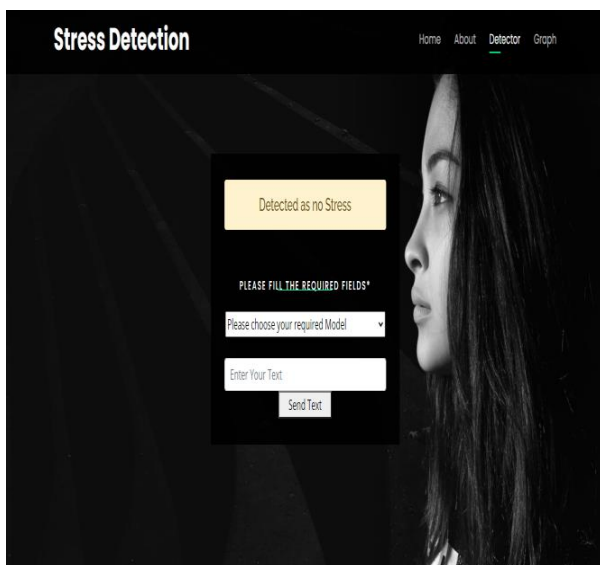


FIG 6.5 DETECTION PAGE (After Submission)



FIG 6.6 GRAPH PAGE

## 7. CONCLUSION

In this application, we have successfully created a system to identify psychological stress. This is made in a user-friendly setting using Flask and Python programming. The system will likely collect information from the user to ascertain whether the words are upsetting.

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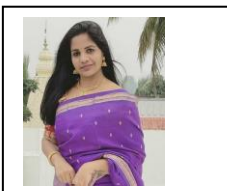
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**Dr. M. Gayatri** Assistant professor in the Department of computer science and Engineering, their publications, the Published paper titled "Stress Detection Based on Social Media Blogs" International Research Journal of Mathematics, Engineering, and IT Volume 4, Issue 6, June 2017