

## INFORMATICS INSTITUTE OF TECHNOLOGY In Collaboration with UNIVERSITY OF WESTMINSTER

# **PsyVBot**

#### **Chatbot to Diagnose Mental Health Disorders**

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#### ABSTRACT

The increasing prevalence of mental health issues such as depression and suicidal thoughts has become a significant concern worldwide. These issues can result from a variety of reasons, including life events, social isolation, and other mental or physical health conditions. As traditional methods of diagnosing depression are time-consuming and often require expert involvement, there is a growing interest in developing automated systems that can detect and diagnose depression symptoms.

This project proposes a solution to diagnose the level of depression using a chatbot powered by a Long Short-Term Memory (LSTM) model trained on a Reddit dataset. The chatbot, named PsyVBot, aims to offer an accessible and anonymous way for individuals to seek support for their mental health concerns. By analyzing the language used in a conversation with the user, PsyVBot can diagnose the level of depression with 94% accuracy.

In summary, the proposed solution is an automated chatbot called PsyVBot that utilizes a LSTM model to diagnose the level of depression based on user input. The chatbot aims to provide a convenient and confidential way for individuals to seek support for their mental health concerns. The project's result demonstrates the potential of natural language processing and machine learning techniques to offer innovative and accessible mental health solutions.