

**Automatic Screening of Depression Symptoms of
Social Media Users**

Jayathi Hewapathirana

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Informatics Institute of Technology, Sri Lanka

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Abstract

Depression affects millions of people globally, and social media has become an important platform for expressing thoughts, feelings and emotions. Identifying individuals at risk of depression using social media data can potentially help mental health professionals develop proactive interventions and support. In this research thesis, a deep learning-based framework was proposed for automatic screening of depression symptoms from social media data.

A large-scale dataset of social media posts from various platforms was collected and annotated with depression labels to train and evaluate the model. Natural language processing techniques and machine learning algorithms were used to analyse the language patterns, sentiment, and behavioural cues of social media users. The proposed framework demonstrated high accuracy in detecting depression symptoms from social media data, with an overall accuracy of 93.25% . A comparative analysis with existing state-of-the-art methods found that the proposed framework outperforms them significantly.

The proposed deep learning-based framework for automatic screening of depression symptoms from social media data is an effective method for identifying individuals at risk of depression. The research thesis could provide valuable insights for mental health professionals, policymakers, and social media companies to develop proactive interventions and support for individuals at risk of depression. The use of natural language processing techniques and machine learning algorithms in the proposed framework provides a promising approach to mental health screening in the digital age.

Keywords: Depression screening, Social media analysis, Natural language processing, Deep learning, Mental health.