

## عنوان مقاله:

Efficient and Deception Resilient Rumor Detection in Twitter

## محل انتشار:

مجله مهندسی کامپیوتر و دانش، دوره 5، شماره 2 (سال: 1401)

تعداد صفحات اصل مقاله: 10

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## خلاصه مقاله:

Social networks have become a central part of our lives these days and have real effects on the world's events. However, social networks greatly boost spreading misinformation and rumors that are becoming more and more dangerous each day. As fighting rumors first requires detecting them, several researchers tried to propose novel approaches for automatic early detection of rumors. However, most of them rely on handcrafted content features which makes them prone to deception and threatens the adaptability of the model. Furthermore, a great deal of work have concentrated on event-level rumor detection while it faces early detection with serious challenges. There are also deficiencies in proposed methods in terms of time and resource complexity. This study proposes a deep learning approach to automate the detection of rumors on Twitter. The proposed method relies on automatically extracted features through word and sentence embeddings along with profile and network-based features. It then uses Recurrent Neural Networks (RNN) leveraging Gated Recurrent Units (GRU) for detecting the veracity of a tweet. The proposed method also improves time efficiency. The achieved experimental evaluation results on RumorEval۲۰۱۹ dataset demonstrate that the proposed method outperforms other rival models on the same dataset in terms of both performance and time complexity. By the way, the proposed method is more resilient to deception by avoiding the use of handcrafted content features and leveraging features that are out of the control of the user.

## کلمات کلیدی:

Deception, deep Learning, Rumor detection, Social network, twitter

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