Abstract

In the field of data mining, the social network is one of the complex systems that poses significant challenges in this area. Time series anomaly detection is one of the critical applications. Recent developments in the quantitative analysis of social networks, based largely on graph theory, have been successfully used in various types of time series data. In this paper, we review the studies on graph theory to investigate and analyze time series social networks data including different efficient and scalable experimental modalities. We provide some applications, challenging issues and existing methods for time series anomaly detection.

References

Advances in Social Networks Analysis and Mining, 2013, pp. 584-591.


59. R. J. Hyndman, E. Wang, and N. Laptev, "Large-scale unusual time series detection," in Data Mining Workshop (ICDMW), 2015 IEEE International Conference on, 2015, pp. 1616-1619.
61. J. Krumm and E. Horvitz, "Eyewitness: Identifying local events via space-time signals in twitter feeds," in Proceedings of the 23rd SIGSPATIAL International Conference on Advances in
Geographic Information Systems, 2015, p. 20.


**Index Terms**

Computer Science

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**Keywords**

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