

Special Issue

Theories and Applications on Data Mining in Graph Neural Networks

Message from the Guest Editors

Graph neural networks (GNNs) have revolutionized learning from graph-structured data, driving breakthroughs in social network analysis, molecular property prediction, and recommendation systems. The integration of data mining with GNNs unlocks unprecedented opportunities to uncover patterns in complex interconnected datasets. This Special Issue invites original research, reviews, and case studies addressing challenges including scalability, interpretability, model robustness, and novel GNN architectures for data mining tasks. Topics of interest include novel GNN architectures, scalable algorithms, anomaly detection, knowledge graph reasoning, dynamic graph mining, heterogeneous graph learning, explainability, recommendation systems, link prediction, molecular and biological data analysis, social network analysis, community detection, transfer learning, and benchmark datasets. By consolidating theoretical advances and practical applications, this Special Issue aims to foster dialogue between researchers and practitioners, identifying promising future directions in GNN-based data mining. We look forward to receiving your contributions.

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About the Journal

Message from the Editor-in-Chief

Big Data and Cognitive Computing (BDCC) is a scholarly online journal which provides a platform for big data theories with emerging technologies on smart clouds and exploring supercomputers with new cognitive applications. It is a peer-reviewed, open access journal that publishes high quality original articles, reviews and short communications. The primary aims of this journal are to encourage contributions of high quality scientific papers relating to data management and analytics in industry, such as manufacturing, healthcare, education, media and business, data mining, and cognitive science. There is no restriction on the maximum length of the papers.

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