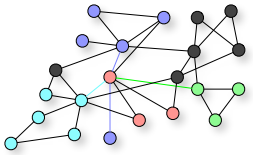
Call For Papers



Future Generation Computer Systems

Special Issue on

Graph-Powered Machine Learning in Future-Generation Computing Systems

IMPACT FACTOR: 5.768

Recent years have witnessed a dramatic increase of graph applications due to advancements in information and communication technologies. In a variety of applications, such as social networks, communication networks, internet of things (IOTs), and human disease networks, graph data contains rich information and exhibits diverse characteristics. Specifically, graph data may come with the node or edge attributes showing the property of an entity or a connection, arise with signed or unsigned edges indicating the positive or negative relationships, form homogenous or heterogeneous information networks modeling different scenarios and settings. Furthermore, in these applications, the graph data is evolving and expanding more and more dynamically. The diverse, dynamic, and large-scale nature of graph data requires different data mining techniques and advanced machine learning methods. Meanwhile, the computing system evolves rapidly and becomes large-scale, collaborative and distributed, with many computing principles proposed such as cloud computing, edge computing and federated learning. Learning from big graph data in future-generation computing systems considers the effectiveness of graph learning, scalability of large-scale computing, privacy preserving under the federated computing setting with multi-source graphs, and graph dynamics. Today's researchers have realized that novel graph learning theory, big graph specific platforms, and advanced graph processing techniques are needed. Therefore, a set of research topics such as distributed graph computing, graph stream learning, and graph embedding techniques have emerged, and applications such as graph-based anomaly detection, social recommendation, social influence analytics are becoming important issues.

Topics of Interests

The topics of interest include, but are not limited to:

- Feature Selection for Graph Data
- Distributed Computing on Big Graphs
- Dynamic and Streaming Graph Learning
- Graph Classification, Clustering, Link Prediction
- Graph Embedding
- Learning from Unattributed / Attributed Networks
- Learning from Unsigned / Signed Networks
- Learning from Homogenous / Heterogeneous Information Networks
- Anomaly Detection in Graph Data
- Sentiment Analysis
- Cyberbullying Detection in Social Networks
- Deep Learning for Graphs
- Graph Based Machine Learning
- Relational Data Analytics
- Social Recommendation
- Knowledge Graph Representation Learning
- Reasoning over Large-scale Knowledge Bases
- Temporal Knowledge Graphs
- Federated Learning with Distributed Graphs
- Social Computing
- Applications of Big Graph Learning

Submission Guidelines

All papers should be submitted to FGCS submission platform: https://www.evise.com/profile/api/navigate/FGCS. When submitting your manuscript please select the article type "VSI: GraphML-FGCS". Please submit your manuscript before the submission deadline. All submissions deemed suitable to be sent for peer review will be reviewed by at least two independent reviewers. Once your manuscript is accepted, it will go into production, and will be simultaneously published in the current regular issue and pulled into the online Special Issue. Articles from this Special Issue will appear in different regular issues of the journal, though they will be clearly marked and branded as Special Issue articles. Please see an example here: Link. Please ensure you read the Guide for Authors before writing your manuscript. The Guide for Authors and the link to submit your manuscript is available on the Journal's homepage.

Important Dates

Paper submission: Jul 15, 2020
Initial review feedback: Sep 15, 2020
Revision: Nov 1, 2020
Final review decision: Jan 31, 2021

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