Announces the Ph.D. Dissertation Defense of

Man Wu

for the degree of Doctor of Philosophy (Ph.D.)

Embedding Learning for Complex Dynamic Information Networks

November 7, 2022, Monday, 12:00 PM – 1:30 PM
Dissertation Defense

Virtual defense link:
https://fau-edu.zoom.us/j/5618090648?pwd=cUN6Uy90ci9xdzd1DTvB5ekppSFGvQ09

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ABSTRACT OF DISSERTATION

Embedding Learning for Complex Dynamic Information Networks

With the rapid development of networking platforms and data intensive applications, networks (or graphs) are becoming convenient and fundamental tools to model the complex inter-dependence among big scale data. However, the high complexity (containing many important information) as well as the dynamic nature of the network makes the graph learning task more difficult. The good graph representation learning is the key factor in performing well on downstream tasks. The dissertation mainly focuses on the graph representation learning, which aims to embed both structure and node content information of graphs into a compact and low dimensional space for a new representation learning. More specifically, in order to achieve an efficient and robust graph representation, the following four problems will be studied from different perspectives: 1) We study the problem of positive unlabeled graph learning for network node classification, and present a new deep learning model as a solution; 2) We formulate a new open-world learning problem for graph data, and propose an uncertain node representation learning approach and sampling strategy to solve the problem; 3) For cross-domain graph learning, we present a novel unsupervised graph domain adaptation problem, and propose an effective graph convolutional network algorithm to solve it; 4) We consider a dynamic graph as a network with changing nodes and edges in temporal order and propose a temporal adaptive aggregation network for dynamic graph learning. Finally, the proposed models are verified and evaluated on various real-world datasets.

BIOGRAPHICAL SKETCH

Born in China
B.S., Shenyang Normal University, Shenyang, Liaoning Province, China, 2013
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Published Papers:


