

Graph Neural Networks for Enhanced Social Network Analysis

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Abstract: *Social network analysis (SNA) is an important approach for understanding complex linkages and interactions between entities. Traditional approaches frequently fail to capture the complexities of network data due to its non-Euclidean character. Graph Neural Networks (GNNs) offer an innovative approach to data analysis by modelling node, edge, and graph features using graph structures and neural network topologies. This study investigates the use of GNNs in social network analysis, focusing on problems such as community recognition, impact maximization, link prediction, and sentiment analysis. Our analysis of cutting-edge GNN models shows how they effectively capture and utilize topological and contextual information from social networks.*

Keywords: Graph Neural Network, Social Network Analysis