

Exploring Graph Data Structures: An Analysis of Social Network Applications Content

Shivani Ravasaheb Naikwadi¹ and Dr. Sharmila More²

Research Student, FYMSc(IMCA), Department of Mathematics¹

Assistant Professor, Department of Computer Science²

MIT ACSC Alandi(D), Pune, Maharashtra

shivanaikwadi915@gmail.com

Abstract: *This research paper investigates the diverse applications of graph data structures within the realm of social networks. It begins with an overview of graph theory fundamentals and discusses how graph data structures are utilized to model complex relationships among individuals in social networks. The paper explores various graph algorithms and techniques commonly employed for tasks such as community detection, centrality analysis, and recommendation system. Scale social network data using graph data structures. Through a comprehensive analysis of existing literature and case studies, this paper sheds light on the significance and practical implications of graph data structures in understanding and analyzing social networks..*

Keywords: Graph data structures, Social networks, Graph theory, Community detection, Centrality analysis, Recommendation systems, Network analysis