

Class LinkedIn Network Analysis Report

◆ Introduction

In this report, we analyse the LinkedIn-style network of our class using data extracted from individual CSV files, where each student lists their connections. By using this as a graph, we explore social dynamics such as the most connected students, central influencers, and overall network cohesion.

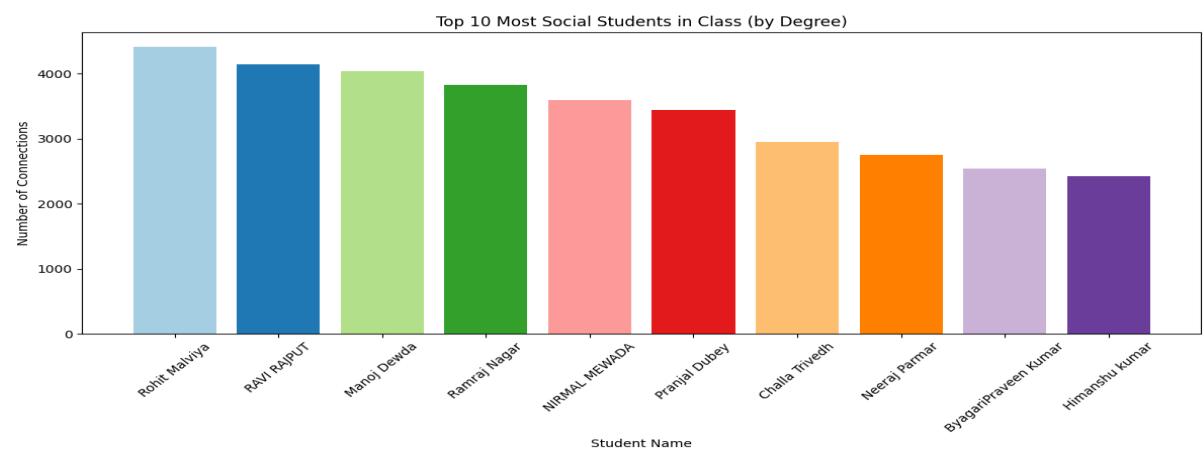
◆ 1. Network Summary

Total Students(Node)	27674
Connected Components	1
Graph Type	Undirected, Unweighted

Insight: The network comprises a single connected component, indicating that every student is indirectly or directly connected, reflecting a tightly-knit class community.

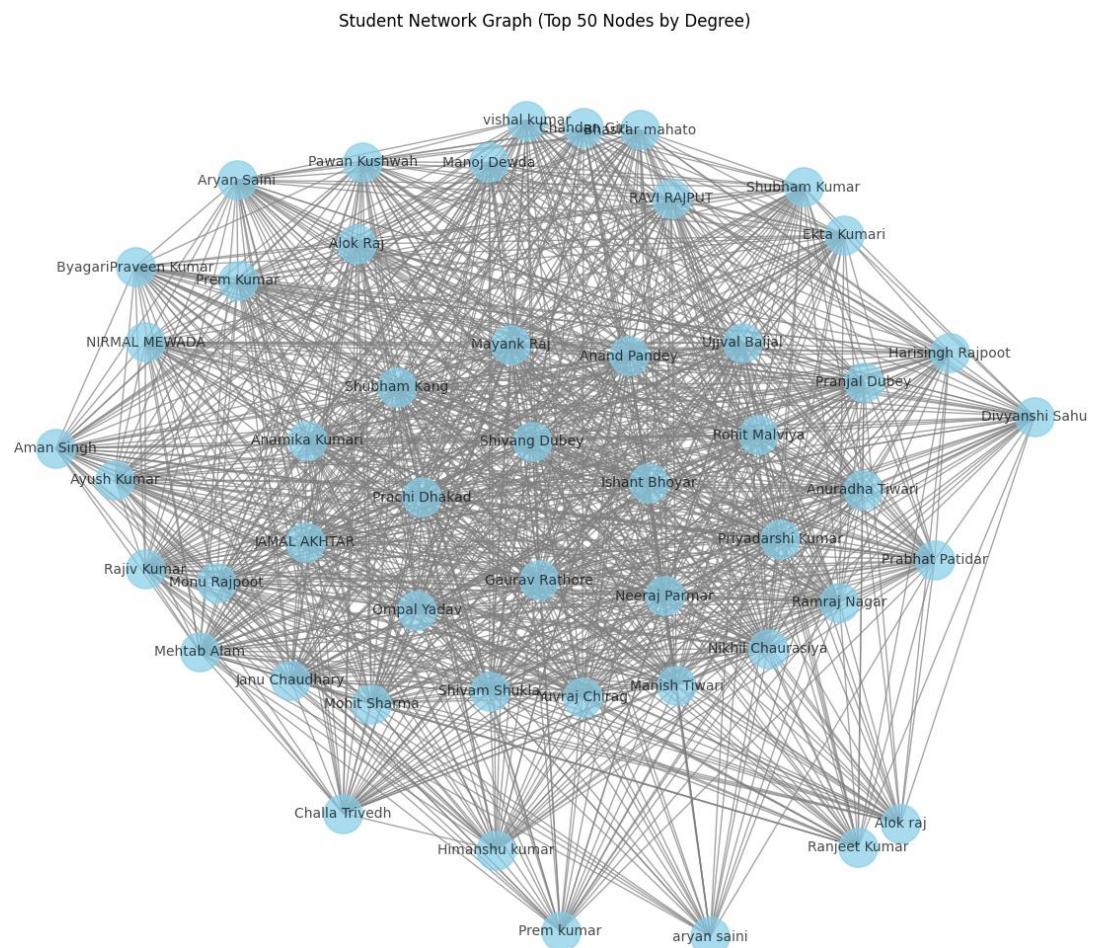
◆ 2. Degree Analysis

Statistic	Value
Average Degree	7
Median Degree	1
Maximum Degree	4373
Minimum Degree	1
Std. Deviation	83.6



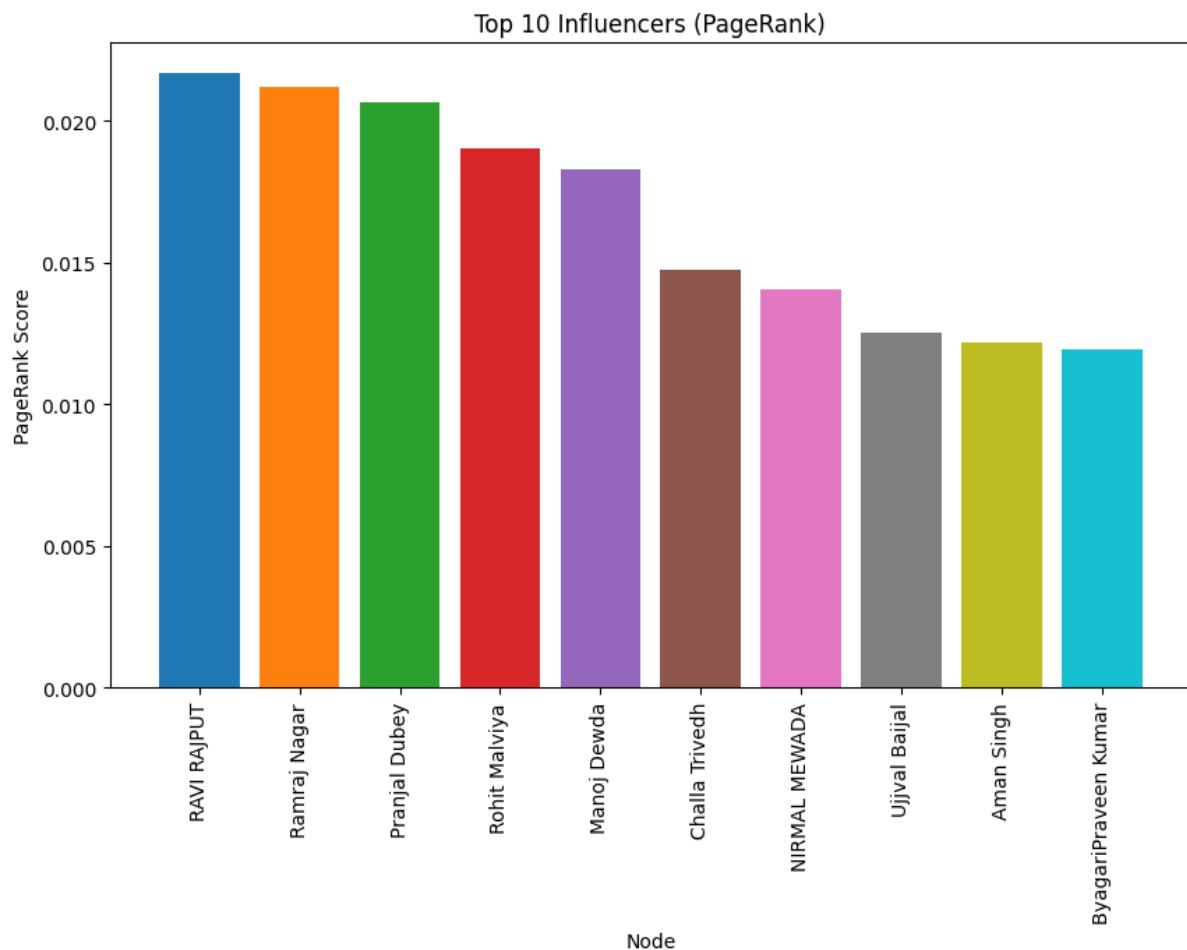
Insight: A small group of students act as major connectors in the class. These could be class representatives, club leaders, or highly active socially.

◆ 3. Network Visualization



- The visual graph below represents the top 50 most connected students. These individuals form the structural backbone of the network, highlighting potential leaders, influencers, and clusters of frequent interactions.
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◆ 4. Influence Metrics



- Students with high PageRank scores are not just well-connected but connected to **other influential** people — much like the concept of “LinkedIn influencers.”

◆ Betweenness Centrality

- These students act as bridges — connecting otherwise separate groups, crucial for information flow in the network.

✳ Conclusion

This analysis revealed:

- Strong overall class connectivity and a core of highly connected influencers.
- Opportunities to use central students for peer outreach, event circulation, or networking initiatives.
- The use of graph theory and centrality measures proved invaluable in understanding the **hidden structure** of our classroom network.