

Exercises

1. How would increasing walk length influence the embeddings?
2. Why might BFS-like walks help capture “structural equivalence” between nodes?
3. Why might DFS-like walks help capture “homophily” between nodes?
4. What problem does node2vec solve, and why do graphs need specialized embedding methods instead of standard word embeddings?
5. What is the intuition behind capturing graph “contexts” using random walks?
6. What does it mean for two nodes to appear in similar random walk contexts?
7. In a transaction network, fraudulent accounts are structurally similar even if far apart. Normal accounts form dense communities. -- What would be your choice of p and q ? Explain