

Title: Comparative Analysis of Word Embedding Techniques

Abstract:

This paper compares Word2Vec, GloVe, and contextual embeddings for semantic similarity tasks. The goal is to evaluate embedding quality using cosine similarity metrics.

Introduction:

Word embeddings map words into dense vector space representations, preserving semantic relationships.

Methodology:

Trained Word2Vec on a small corpus.

Evaluated similarity scores between related word pairs.

Compared with pre-trained contextual embeddings.

Results:

Contextual embeddings captured polysemy better.

Static embeddings performed efficiently on smaller datasets.

Conclusion:

Contextual embeddings outperform static embeddings in semantic understanding tasks.