

Challenges and Opportunities of Graph-Based Algorithms for Similarity Search

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Abstract

Over the last few years, graph-based approaches to nearest neighbor search have attracted renewed interest. Algorithms such as HNSW, NSG, and DiskANN have become popular tools in practice. These algorithms are highly versatile and come with efficient implementations. At the same time, their correctness, performance guarantees, and functionality remain poorly understood. In this talk, I will discuss the challenges and opportunities presented by this class of algorithms.

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