Semantic Search and Vector Embeddings

Semantic search allows users to find content based on meaning rather than exact keywords. Vector embeddings represent text in a numerical space where similar concepts are close together.

Artificial intelligence enables systems to learn from data. Machine learning models can identify patterns and make predictions. Neural networks process information through layers of interconnected nodes, mimicking the human brain.

How does semantic search work? Text is converted into dense vectors using embedding models.
These vectors capture semantic meaning. When you search, your query is also embedded, and
the system finds documents with similar vectors using cosine similarity or other metrics.

Vector embeddings are fundamental to modern NLP. They enable applications like document retrieval, recommendation systems, and question answering. The quality of embeddings directly affects search relevance.