

FAISS:

What is FAISS?

FAISS – Facebook AI Similarity Search for High-Speed Vector Search

- ❑ Developed by Meta AI.
- ❑ C++ library with Python bindings.
- ❑ Built for fast nearest-neighbor search.
- ❑ Great for offline/local applications.
- ❑ Highly customizable indexing strategies.



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Key Features of FAISS

- ❑ **Blazing Fast:** CPU/GPU acceleration.
- ❑ **Flexible Index Types:** Flat, IVFFlat, HNSW, PQ, etc.
- ❑ **Exact or Approximate Search.**
- ❑ **Low-level Control:** Perfect for researchers and engineers.
- ❑ **No internet needed:** Works fully offline.



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Use Cases for FAISS

- ☐ Offline document search.
- ☐ Mobile or edge AI models.
- ☐ Fast search in recommender systems.
- ☐ Embedding visualization with t-SNE, PCA.

