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# Best bin first

From Wikipedia, the free encyclopedia

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**Best bin first** is a [search algorithm](#) that is designed to efficiently find an approximate solution to the [nearest neighbor search](#) problem in very-high-dimensional spaces. The algorithm is based on a variant of the [kd-tree](#) search algorithm which makes indexing higher-dimensional spaces possible. Best bin first is an approximate algorithm which returns the nearest neighbor for a large fraction of queries and a very close neighbor otherwise.<sup>[1]</sup>

## Differences from kd tree [\[edit\]](#)

- Backtracking is according to a priority queue based on closeness.
- Search a fixed number of nearest candidates and stop.
- A speedup of two orders of magnitude is typical.

## References [\[edit\]](#)

- ↑ Beis, J.; Lowe, D. G. (1997). *Shape indexing using approximate nearest-neighbour search in high-dimensional spaces*. Conference on Computer Vision and Pattern Recognition. Puerto Rico. pp. 1000–1006. [CiteSeerX 10.1.1.23.9493](#).



*This [algorithms](#) or [data structures](#)-related article is a *stub*. You can help Wikipedia by [expanding it](#).*

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