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\* [CEF1Evaluator](../../package\_reference/cross\_encoder/evaluation.html#cef1evaluator)

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[CESoftmaxAccuracyEvaluator](../../package\_reference/cross\_encoder/evaluation.html#cesoftmaxaccuracyevaluator)

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[CERerankingEvaluator](../../package\_reference/cross\_encoder/evaluation.html#cererankingevaluator)

\* [util](../../package\_reference/util.html)

\* [Helper Functions](../package\_reference/util.html#module-sentence\_transformers.util)

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[`community\_detection()`](../package\_reference/util.html#sentence\_transformers.util.community\_detection)

\* [`http\_get()`](../package\_reference/util.html#sentence\_transformers.util.http\_get)

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[`is\_training\_available()`](../package\_reference/util.html#sentence\_transformers.util.is\_training\_available)

\*

[`mine\_hard\_negatives()`](../package\_reference/util.html#sentence\_transformers.util.mine\_hard\_negatives)

\*

[`normalize\_embeddings()`](../package\_reference/util.html#sentence\_transformers.util.normalize\_embeddings)

\*

[`paraphrase\_mining()`](../package\_reference/util.html#sentence\_transformers.util.paraphrase\_mining)

\*

[`semantic\_search()`](../package\_reference/util.html#sentence\_transformers.util.semantic\_search)

\*

[`truncate\_embeddings()`](../package\_reference/util.html#sentence\_transformers.util.truncate\_embeddings)

\* [Model Optimization](../package\_reference/util.html#module-sentence\_transformers.backend)

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[`export\_dynamic\_quantized\_onnx\_model()`](../package\_reference/util.html#sentence\_transformers.backend.export\_dynamic\_quantized\_onnx\_model)

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[`export\_optimized\_onnx\_model()`](../package\_reference/util.html#sentence\_transformers.backend.export\_optimized\_onnx\_model)

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[`export\_static\_quantized\_openvino\_model()`](../package\_reference/util.html#sentence\_transformers.backend.export\_static\_quantized\_openvino\_model)

\* [Similarity Metrics](../package\_reference/util.html#module-sentence\_transformers.util)

\* [`cos\_sim()`](../package\_reference/util.html#sentence\_transformers.util.cos\_sim)

\* [`dot\_score()`](../package\_reference/util.html#sentence\_transformers.util.dot\_score)

\* [`euclidean\_sim()`](../package\_reference/util.html#sentence\_transformers.util.euclidean\_sim)

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[`manhattan\_sim()`](../package\_reference/util.html#sentence\_transformers.util.manhattan\_sim)

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[`pairwise\_cos\_sim()`](../package\_reference/util.html#sentence\_transformers.util.pairwise\_cos\_sim)

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[`pairwise\_dot\_score()`](../package\_reference/util.html#sentence\_transformers.util.pairwise\_dot\_score)

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[`pairwise\_euclidean\_sim()`](../package\_reference/util.html#sentence\_transformers.util.pairwise\_euclidean\_sim)

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[`pairwise\_manhattan\_sim()`](../package\_reference/util.html#sentence\_transformers.util.pairwise\_manhattan\_sim)

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\* [(../index.html)

## \* Training Examples

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on

GitHub](https://github.com/UKPLab/sentence-transformers/blob/master/docs/cross\_encoder/training/examples.md)

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## # Training Examplesif•

See the following examples how to train Cross-Encoders:

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[training\_stsbenchmark.py](https://github.com/UKPLab/sentence-transformers/tree/master/docs/cross\_encoder/training/../../examples/training/cross-encoder/training\_stsbenchmark.py) \- Example how to train for Semantic Textual Similarity (STS) on the STS benchmark dataset.

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[training\_quora\_duplicate\_questions.py](https://github.com/UKPLab/sentence-transformers/tree/master/docs/cross\_encoder/training/../../examples/training/cross-encoder/training\_quora\_duplicate\_questions.py) \- Example how to train a Cross-Encoder to predict if two questions are duplicates. Uses Quora Duplicate Questions as training dataset.

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[training\_nli.py](https://github.com/UKPLab/sentence-transformers/tree/master/docs/cross\_encoder/training/../../examples/training/cross-encoder/training\_nli.py) \- Example for a multilabel classification task for Natural Language Inference (NLI) task.

## Supervised Learning

\* [\[MS MARCO\]\(../../examples/training/ms\\_marco/cross\\_encoder\\_README.html\)](#)

[\[ Previous\]\(../training\\_overview.html "Training Overview"\)](#) [\[Next](#)

[\]\(../../examples/training/ms\\_marco/cross\\_encoder\\_README.html "MS MARCO"\)](#)

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