

[![Logo](../../_static/logo.png)](../../index.html)

Getting Started

- * [Installation](../../installation.html)
- * [Install with pip](../../installation.html#install-with-pip)
- * [Install with Conda](../../installation.html#install-with-conda)
- * [Install from Source](../../installation.html#install-from-source)
- * [Editable Install](../../installation.html#editable-install)
- * [Install PyTorch with CUDA support](../../installation.html#install-pytorch-with-cuda-support)
- * [Quickstart](../../quickstart.html)
- * [Sentence Transformer](../../quickstart.html#sentence-transformer)
- * [Cross Encoder](../../quickstart.html#cross-encoder)
- * [Next Steps](../../quickstart.html#next-steps)

Sentence Transformer

- * [Usage](../../sentence_transformer/usage/usage.html)
- * [Computing Embeddings](../../examples/applications/computing-embeddings/README.html)
 - * [Initializing a Sentence Transformer Model](../../examples/applications/computing-embeddings/README.html#initializing-a-sentence-transformer-model)
 - * [Calculating Embeddings](../../examples/applications/computing-embeddings/README.html#calculating-embeddings)
 - * [Prompt Templates](../../examples/applications/computing-embeddings/README.html#prompt-templates)

[* \[Input Sequence Length\]\(../../examples/applications/computing-embeddings/README.html#id1\)](#)

[* \[Multi-Process / Multi-GPU Encoding\]\(../../examples/applications/computing-embeddings/README.html#multi-process-multi-gpu-encoding\)](#)

[* \[Semantic Textual Similarity\]\(../../sentence_transformer/usage/semantic_textual_similarity.html\)](#)

[* \[Similarity Calculation\]\(../../sentence_transformer/usage/semantic_textual_similarity.html#similarity-calculation\)](#)

[* \[Semantic Search\]\(../../examples/applications/semantic-search/README.html\)](#)

[* \[Background\]\(../../examples/applications/semantic-search/README.html#background\)](#)

[* \[Symmetric vs. Asymmetric Semantic Search\]\(../../examples/applications/semantic-search/README.html#symmetric-vs-asymmetric-semantic-search\)](#)

[* \[Manual Implementation\]\(../../examples/applications/semantic-search/README.html#manual-implementation\)](#)

[* \[Optimized Implementation\]\(../../examples/applications/semantic-search/README.html#optimized-implementation\)](#)

[* \[Speed Optimization\]\(../../examples/applications/semantic-search/README.html#speed-optimization\)](#)

[* \[Elasticsearch\]\(../../examples/applications/semantic-search/README.html#elasticsearch\)](#)

[* \[Approximate Nearest Neighbor\]\(../../examples/applications/semantic-search/README.html#approximate-nearest-neighbor\)](#)

[* \[Retrieve & Re-Rank\]\(../../examples/applications/semantic-search/README.html#retrieve-re-rank\)](#)

* [Examples](../../examples/applications/semantic-search/README.html#examples)

* [Retrieve & Re-Rank](../../examples/applications/retrieve_rerank/README.html)

* [Retrieve & Re-Rank

Pipeline](../../examples/applications/retrieve_rerank/README.html#retrieve-re-rank-pipeline)

* [Retrieval:

Bi-Encoder](../../examples/applications/retrieve_rerank/README.html#retrieval-bi-encoder)

* [Re-Ranker:

Cross-Encoder](../../examples/applications/retrieve_rerank/README.html#re-ranker-cross-encoder)

* [Example Scripts](../../examples/applications/retrieve_rerank/README.html#example-scripts)

* [Pre-trained Bi-Encoders

(Retrieval)](../../examples/applications/retrieve_rerank/README.html#pre-trained-bi-encoders-retrieval)

* [Pre-trained Cross-Encoders

(Re-Ranker)](../../examples/applications/retrieve_rerank/README.html#pre-trained-cross-encoders-re-ranker)

* [Clustering](../../examples/applications/clustering/README.html)

* [k-Means](../../examples/applications/clustering/README.html#k-means)

* [Agglomerative

Clustering](../../examples/applications/clustering/README.html#agglomerative-clustering)

* [Fast Clustering](../../examples/applications/clustering/README.html#fast-clustering)

* [Topic Modeling](../../examples/applications/clustering/README.html#topic-modeling)

* [Paraphrase Mining](../../examples/applications/paraphrase-mining/README.html)

*

[`paraphrase_mining()`](../../examples/applications/paraphrase-mining/README.html#sentence_transformers.util.paraphrase_mining)

* [Translated Sentence

Mining](../../examples/applications/parallel-sentence-mining/README.html)

* [Margin Based

Mining](../../examples/applications/parallel-sentence-mining/README.html#margin-based-mining)

* [Examples](../../examples/applications/parallel-sentence-mining/README.html#examples)

* [Image Search](../../examples/applications/image-search/README.html)

* [Installation](../../examples/applications/image-search/README.html#installation)

* [Usage](../../examples/applications/image-search/README.html#usage)

* [Examples](../../examples/applications/image-search/README.html#examples)

* [Embedding Quantization](../../examples/applications/embedding-quantization/README.html)

* [Binary

Quantization](../../examples/applications/embedding-quantization/README.html#binary-quantization)

* [Scalar (int8)

Quantization](../../examples/applications/embedding-quantization/README.html#scalar-int8-quantization)

* [Additional

extensions](../../examples/applications/embedding-quantization/README.html#additional-extensions)

* [Demo](../../examples/applications/embedding-quantization/README.html#demo)

* [Try it

yourself](../../examples/applications/embedding-quantization/README.html#try-it-yourself)

* [Speeding up Inference](../../sentence_transformer/usage/efficiency.html)

* [PyTorch](../../sentence_transformer/usage/efficiency.html#pytorch)

* [ONNX](../../sentence_transformer/usage/efficiency.html#onnx)

* [OpenVINO](../../sentence_transformer/usage/efficiency.html#openvino)

* [Benchmarks](../../sentence_transformer/usage/efficiency.html#benchmarks)

* [Creating Custom Models](../../sentence_transformer/usage/custom_models.html)

* [Structure of Sentence Transformer

Models](../../sentence_transformer/usage/custom_models.html#structure-of-sentence-transformer-models)

* [Sentence Transformer Model from a Transformers

Model](../../sentence_transformer/usage/custom_models.html#sentence-transformer-model-from-a-transformers-model)

* [Pretrained Models](../../sentence_transformer/pretrained_models.html)

* [Original Models](../../sentence_transformer/pretrained_models.html#original-models)

* [Semantic Search

Models](../../sentence_transformer/pretrained_models.html#semantic-search-models)

* [Multi-QA Models](../../sentence_transformer/pretrained_models.html#multi-qa-models)

* [MSMARCO Passage

Models](../../sentence_transformer/pretrained_models.html#msmarco-passage-models)

* [Multilingual Models](../../sentence_transformer/pretrained_models.html#multilingual-models)

* [Semantic Similarity

Models](../../sentence_transformer/pretrained_models.html#semantic-similarity-models)

* [Bitext Mining](../../sentence_transformer/pretrained_models.html#bitext-mining)

* [Image & Text-Models](../../sentence_transformer/pretrained_models.html#image-text-models)

* [INSTRUCTOR models](../../sentence_transformer/pretrained_models.html#instructor-models)

* [Scientific Similarity

Models](../../sentence_transformer/pretrained_models.html#scientific-similarity-models)

* [Training Overview](../../sentence_transformer/training_overview.html)

* [Why Finetune?](../../sentence_transformer/training_overview.html#why-finetune)

* [Training Components](../../sentence_transformer/training_overview.html#training-components)

* [Dataset](../../sentence_transformer/training_overview.html#dataset)

* [Dataset Format](../../sentence_transformer/training_overview.html#dataset-format)

* [Loss Function](../../sentence_transformer/training_overview.html#loss-function)

- * [Training Arguments](../../sentence_transformer/training_overview.html#training-arguments)
- * [Evaluator](../../sentence_transformer/training_overview.html#evaluator)
- * [Trainer](../../sentence_transformer/training_overview.html#trainer)
- * [Callbacks](../../sentence_transformer/training_overview.html#callbacks)
- * [Multi-Dataset Training](../../sentence_transformer/training_overview.html#multi-dataset-training)
- * [Deprecated Training](../../sentence_transformer/training_overview.html#deprecated-training)
- * [Best Base Embedding Models](../../sentence_transformer/training_overview.html#best-base-embedding-models)
- * [Dataset Overview](../../sentence_transformer/dataset_overview.html)
 - * [Datasets on the Hugging Face Hub](../../sentence_transformer/dataset_overview.html#datasets-on-the-hugging-face-hub)
 - * [Pre-existing Datasets](../../sentence_transformer/dataset_overview.html#pre-existing-datasets)
- * [Loss Overview](../../sentence_transformer/loss_overview.html)
 - * [Loss modifiers](../../sentence_transformer/loss_overview.html#loss-modifiers)
 - * [Distillation](../../sentence_transformer/loss_overview.html#distillation)
 - * [Commonly used Loss Functions](../../sentence_transformer/loss_overview.html#commonly-used-loss-functions)
 - * [Custom Loss Functions](../../sentence_transformer/loss_overview.html#custom-loss-functions)
- * [Training Examples](../../sentence_transformer/training/examples.html)
 - * [Semantic Textual Similarity](../../examples/training/sts/README.html)
 - * [Training data](../../examples/training/sts/README.html#training-data)
 - * [Loss Function](../../examples/training/sts/README.html#loss-function)
 - * [Natural Language Inference](../../examples/training/nli/README.html)
 - * [Data](../../examples/training/nli/README.html#data)
 - * [SoftmaxLoss](../../examples/training/nli/README.html#softmaxloss)
 - * [MultipleNegativesRankingLoss](../../examples/training/nli/README.html#multiplenegativesrankin

gloss)

- * [Paraphrase Data](../../examples/training/paraphrases/README.html)
- * [Pre-Trained Models](../../examples/training/paraphrases/README.html#pre-trained-models)
- * [Quora Duplicate Questions](../../examples/training/quora_duplicate_questions/README.html)
- * [Training](../../examples/training/quora_duplicate_questions/README.html#training)

*

[MultipleNegativesRankingLoss](../../examples/training/quora_duplicate_questions/README.html#multiplenegativesrankingloss)

*

[Pretrained

Models](../../examples/training/quora_duplicate_questions/README.html#pretrained-models)

- * [MS MARCO](../../examples/training/ms_marco/README.html)
- * [Bi-Encoder](../../examples/training/ms_marco/README.html#bi-encoder)
- * [Matryoshka Embeddings](../../examples/training/matryoshka/README.html)
- * [Use Cases](../../examples/training/matryoshka/README.html#use-cases)
- * [Results](../../examples/training/matryoshka/README.html#results)
- * [Training](../../examples/training/matryoshka/README.html#training)
- * [Inference](../../examples/training/matryoshka/README.html#inference)
- * [Code Examples](../../examples/training/matryoshka/README.html#code-examples)
- * [Adaptive Layers](../../examples/training/adaptive_layer/README.html)
- * [Use Cases](../../examples/training/adaptive_layer/README.html#use-cases)
- * [Results](../../examples/training/adaptive_layer/README.html#results)
- * [Training](../../examples/training/adaptive_layer/README.html#training)
- * [Inference](../../examples/training/adaptive_layer/README.html#inference)
- * [Code Examples](../../examples/training/adaptive_layer/README.html#code-examples)
- * [Multilingual Models](../../examples/training/multilingual/README.html)

*

[Extend

your

own

models](../../examples/training/multilingual/README.html#extend-your-own-models)

- * [Training](../../examples/training/multilingual/README.html#training)
- * [Datasets](../../examples/training/multilingual/README.html#datasets)
 - * [Sources for Training Data](../../examples/training/multilingual/README.html#sources-for-training-data)
 - * [Evaluation](../../examples/training/multilingual/README.html#evaluation)
 - * [Available Pre-trained Models](../../examples/training/multilingual/README.html#available-pre-trained-models)
 - * [Usage](../../examples/training/multilingual/README.html#usage)
 - * [Performance](../../examples/training/multilingual/README.html#performance)
 - * [Citation](../../examples/training/multilingual/README.html#citation)
 - * [Model Distillation](../../examples/training/distillation/README.html)
 - * [Knowledge Distillation](../../examples/training/distillation/README.html#knowledge-distillation)
 - * [Speed - Performance Trade-Off](../../examples/training/distillation/README.html#speed-performance-trade-off)
 - * [Dimensionality Reduction](../../examples/training/distillation/README.html#dimensionality-reduction)
 - * [Quantization](../../examples/training/distillation/README.html#quantization)
 - * [Augmented SBERT](../../examples/training/data_augmentation/README.html)
 - * [Motivation](../../examples/training/data_augmentation/README.html#motivation)
 - * [Extend to your own datasets](../../examples/training/data_augmentation/README.html#extend-to-your-own-datasets)
 - * [Methodology](../../examples/training/data_augmentation/README.html#methodology)
 - * [Scenario 1: Limited or small annotated datasets (few labeled sentence-pairs)](../../examples/training/data_augmentation/README.html#scenario-1-limited-or-small-annotated-datasets-few-labeled-sentence-pairs)
 - * [Scenario 2: No annotated datasets (Only unlabeled

sentence-pairs)](../../examples/training/data_augmentation/README.html#scenario-2-no-annotated-datasets-only-unlabeled-sentence-pairs)

- * [Training](../../examples/training/data_augmentation/README.html#training)
- * [Citation](../../examples/training/data_augmentation/README.html#citation)
- * [Training with Prompts](../../examples/training/prompts/README.html)
- * [What are Prompts?](../../examples/training/prompts/README.html#what-are-prompts)
 - * [Why would we train with Prompts?](../../examples/training/prompts/README.html#why-would-we-train-with-prompts)
 - * [How do we train with Prompts?](../../examples/training/prompts/README.html#how-do-we-train-with-prompts)
- * [Training with PEFT Adapters](../../examples/training/peft/README.html)
- * [Compatibility Methods](../../examples/training/peft/README.html#compatibility-methods)
- * [Adding a New Adapter](../../examples/training/peft/README.html#adding-a-new-adapter)
 - * [Loading a Pretrained Adapter](../../examples/training/peft/README.html#loading-a-pretrained-adapter)
- * [Training Script](../../examples/training/peft/README.html#training-script)
- * [Unsupervised Learning](../../examples/unsupervised_learning/README.html)
- * [TSDAE](../../examples/unsupervised_learning/README.html#tsdae)
- * [SimCSE](../../examples/unsupervised_learning/README.html#simcse)
- * [CT](../../examples/unsupervised_learning/README.html#ct)
 - * [CT (In-Batch Negative Sampling)](../../examples/unsupervised_learning/README.html#ct-in-batch-negative-sampling)
 - * [Masked Language Model (MLM)](../../examples/unsupervised_learning/README.html#masked-language-model-mlm)
- * [GenQ](../../examples/unsupervised_learning/README.html#genq)
- * [GPL](../../examples/unsupervised_learning/README.html#gpl)
 - * [Performance

[Comparison\]\(../../examples/unsupervised_learning/README.html#performance-comparison\)](#)

* [\[Domain Adaptation\]\(../../examples/domain_adaptation/README.html\)](#)

* [\[Domain Adaptation vs. Unsupervised Learning\]\(../../examples/domain_adaptation/README.html#domain-adaptation-vs-unsupervised-learning\)](#)

* [\[Adaptive Pre-Training\]\(../../examples/domain_adaptation/README.html#adaptive-pre-training\)](#)

* [\[GPL: Generative Pseudo-Labeling\]\(../../examples/domain_adaptation/README.html#gpl-generative-pseudo-labeling\)](#)

* [\[Hyperparameter Optimization\]\(../../examples/training/hpo/README.html\)](#)

* [\[HPO Components\]\(../../examples/training/hpo/README.html#hpo-components\)](#)

* [\[Putting It All Together\]\(../../examples/training/hpo/README.html#putting-it-all-together\)](#)

* [\[Example Scripts\]\(../../examples/training/hpo/README.html#example-scripts\)](#)

* [\[Distributed Training\]\(../../sentence_transformer/training/distributed.html\)](#)

* [\[Comparison\]\(../../sentence_transformer/training/distributed.html#comparison\)](#)

* [\[FSDP\]\(../../sentence_transformer/training/distributed.html#fsdp\)](#)

Cross Encoder

* [\[Usage\]\(../../cross_encoder/usage/usage.html\)](#)

* [\[Retrieve & Re-Rank\]\(../../examples/applications/retrieve_rerank/README.html\)](#)

* [\[Retrieve & Re-Rank Pipeline\]\(../../examples/applications/retrieve_rerank/README.html#retrieve-re-rank-pipeline\)](#)

* [\[Retrieval: Bi-Encoder\]\(../../examples/applications/retrieve_rerank/README.html#retrieval-bi-encoder\)](#)

* [\[Re-Ranker:](#)

Cross-Encoder](../../examples/applications/retrieve_rerank/README.html#re-ranker-cross-encoder)

* [Example Scripts](../../examples/applications/retrieve_rerank/README.html#example-scripts)

* [Pre-trained Bi-Encoders (Retrieval)](../../examples/applications/retrieve_rerank/README.html#pre-trained-bi-encoders-retrieval)

* [Pre-trained Cross-Encoders (Re-Ranker)](../../examples/applications/retrieve_rerank/README.html#pre-trained-cross-encoders-re-ranker)

* [Pretrained Models](../../cross_encoder/pretrained_models.html)

* [MS MARCO](../../cross_encoder/pretrained_models.html#ms-marco)

* [SQuAD (QNLI)](../../cross_encoder/pretrained_models.html#squad-qnli)

* [STSbenchmark](../../cross_encoder/pretrained_models.html#stsbenchmark)

* [Quora Duplicate Questions](../../cross_encoder/pretrained_models.html#quora-duplicate-questions)

* [NLI](../../cross_encoder/pretrained_models.html#nli)

* [Community Models](../../cross_encoder/pretrained_models.html#community-models)

* [Training Overview](../../cross_encoder/training_overview.html)

* [Training Examples](../../cross_encoder/training/examples.html)

* [MS MARCO](../../examples/training/ms_marco/cross_encoder_README.html)

*

[Cross-Encoder](../../examples/training/ms_marco/cross_encoder_README.html#cross-encoder)

* [Cross-Encoder Knowledge Distillation](../../examples/training/ms_marco/cross_encoder_README.html#cross-encoder-knowledge-distillation)

Package Reference

* [Sentence Transformer](../sentence_transformer/index.html)

* [SentenceTransformer](../sentence_transformer/SentenceTransformer.html)

* [SentenceTransformer](../sentence_transformer/SentenceTransformer.html#id1)

*

[SentenceTransformerModelCardData](../sentence_transformer/SentenceTransformer.html#sentence-transformer-model-card-data)

* [SimilarityFunction](../sentence_transformer/SentenceTransformer.html#similarity-function)

* [Trainer](../sentence_transformer/trainer.html)

*

[SentenceTransformerTrainer](../sentence_transformer/trainer.html#sentence-transformer-trainer)

* [Training Arguments](../sentence_transformer/training_args.html)

*

[SentenceTransformerTrainingArguments](../sentence_transformer/training_args.html#sentence-transformer-training-arguments)

* [Losses](../sentence_transformer/losses.html)

* [BatchAllTripletLoss](../sentence_transformer/losses.html#batch-all-triplet-loss)

*

[BatchHardSoftMarginTripletLoss](../sentence_transformer/losses.html#batch-hard-soft-margin-triplet-loss)

* [BatchHardTripletLoss](../sentence_transformer/losses.html#batch-hard-triplet-loss)

* [BatchSemiHardTripletLoss](../sentence_transformer/losses.html#batch-semi-hard-triplet-loss)

* [ContrastiveLoss](../sentence_transformer/losses.html#contrastive-loss)

* [OnlineContrastiveLoss](../sentence_transformer/losses.html#online-contrastive-loss)

* [ContrastiveTensionLoss](../sentence_transformer/losses.html#contrastive-tension-loss)

*

[ContrastiveTensionLossInBatchNegatives](../sentence_transformer/losses.html#contrastive-tension-loss-in-batch-negatives)

ossinbatchnegatives)

- * [CoSENTLoss](../sentence_transformer/losses.html#cosentloss)
- * [AngleLoss](../sentence_transformer/losses.html#angleloss)
- * [CosineSimilarityLoss](../sentence_transformer/losses.html#cosinesimilarityloss)
- * [DenoisingAutoEncoderLoss](../sentence_transformer/losses.html#denoisingautoencoderloss)
- * [GISTEmbedLoss](../sentence_transformer/losses.html#gistembedloss)
- * [CachedGISTEmbedLoss](../sentence_transformer/losses.html#cachedgistembedloss)
- * [MSELoss](../sentence_transformer/losses.html#mseloss)
- * [MarginMSELoss](../sentence_transformer/losses.html#marginmseloss)
- * [MatryoshkaLoss](../sentence_transformer/losses.html#matryoshkaloss)
- * [Matryoshka2dLoss](../sentence_transformer/losses.html#matryoshka2dloss)
- * [AdaptiveLayerLoss](../sentence_transformer/losses.html#adaptivelayerloss)
- * [MegaBatchMarginLoss](../sentence_transformer/losses.html#megabatchmarginloss)

*

[MultipleNegativesRankingLoss](../sentence_transformer/losses.html#multiplenegativesrankingloss)

*

[CachedMultipleNegativesRankingLoss](../sentence_transformer/losses.html#cachedmultiplenegativesrankingloss)

*

[MultipleNegativesSymmetricRankingLoss](../sentence_transformer/losses.html#multiplenegativessymmetricrankingloss)

*

[CachedMultipleNegativesSymmetricRankingLoss](../sentence_transformer/losses.html#cachedmultiplenegativessymmetricrankingloss)

- * [SoftmaxLoss](../sentence_transformer/losses.html#softmaxloss)
- * [TripletLoss](../sentence_transformer/losses.html#tripletloss)
- * [Samplers](../sentence_transformer/sampler.html)

* [BatchSamplers](../sentence_transformer/sampler.html#batchsamplers)

*

[MultiDatasetBatchSamplers](../sentence_transformer/sampler.html#multidatasetbatchsamplers)

* [Evaluation](../sentence_transformer/evaluation.html)

*

[BinaryClassificationEvaluator](../sentence_transformer/evaluation.html#binaryclassificationevaluator)

*

[EmbeddingSimilarityEvaluator](../sentence_transformer/evaluation.html#embeddingsimilarityevaluator)

*

[InformationRetrievalEvaluator](../sentence_transformer/evaluation.html#informationretrievalevaluator)

* [NanoBEIREvaluator](../sentence_transformer/evaluation.html#nanobeirevaluator)

* [MSEEvaluator](../sentence_transformer/evaluation.html#mseevaluator)

*

[ParaphraseMiningEvaluator](../sentence_transformer/evaluation.html#paraphraseminingevaluator)

* [RerankingEvaluator](../sentence_transformer/evaluation.html#rerankingevaluator)

* [SentenceEvaluator](../sentence_transformer/evaluation.html#sentenceevaluator)

* [SequentialEvaluator](../sentence_transformer/evaluation.html#sequentialevaluator)

* [TranslationEvaluator](../sentence_transformer/evaluation.html#translationevaluator)

* [TripletEvaluator](../sentence_transformer/evaluation.html#tripletevaluator)

* [Datasets](../sentence_transformer/datasets.html)

* [ParallelSentencesDataset](../sentence_transformer/datasets.html#parallelsentencesdataset)

* [SentenceLabelDataset](../sentence_transformer/datasets.html#sentencelabeldataset)

*

[DenoisingAutoEncoderDataset](../sentence_transformer/datasets.html#denoisingautoencoderdataset)

et)

- * [NoDuplicatesDataLoader](../sentence_transformer/datasets.html#noduplicatesdataloader)

- * [Models](../sentence_transformer/models.html)

- * [Main Classes](../sentence_transformer/models.html#main-classes)

- * [Further Classes](../sentence_transformer/models.html#further-classes)

- * [quantization](../sentence_transformer/quantization.html)

*

[`quantize_embeddings()`](../sentence_transformer/quantization.html#sentence_transformers.quantization.quantize_embeddings)

*

[`semantic_search_faiss()`](../sentence_transformer/quantization.html#sentence_transformers.quantization.semantic_search_faiss)

*

[`semantic_search_usearch()`](../sentence_transformer/quantization.html#sentence_transformers.quantization.semantic_search_usearch)

- * Cross Encoder

- * [CrossEncoder](cross_encoder.html)

- * [CrossEncoder](cross_encoder.html#id1)

- * [Training Inputs](cross_encoder.html#training-inputs)

- * [Evaluation](evaluation.html)

- * [CEBinaryAccuracyEvaluator](evaluation.html#cebinaryaccuracyevaluator)

- * [CEBinaryClassificationEvaluator](evaluation.html#cebinaryclassificationevaluator)

- * [CECorrelationEvaluator](evaluation.html#cecorrelationevaluator)

- * [CEF1Evaluator](evaluation.html#cef1evaluator)

- * [CESoftmaxAccuracyEvaluator](evaluation.html#cesoftmaxaccuracyevaluator)

- * [CERerankingEvaluator](evaluation.html#cererankingevaluator)

- * [util](../util.html)

- * [Helper Functions](../util.html#module-sentence_transformers.util)
 - * [community_detection()](../util.html#sentence_transformers.util.community_detection)
 - * [http_get()](../util.html#sentence_transformers.util.http_get)
 - * [is_training_available()](../util.html#sentence_transformers.util.is_training_available)
 - * [mine_hard_negatives()](../util.html#sentence_transformers.util.mine_hard_negatives)
 - * [normalize_embeddings()](../util.html#sentence_transformers.util.normalize_embeddings)
 - * [paraphrase_mining()](../util.html#sentence_transformers.util.paraphrase_mining)
 - * [semantic_search()](../util.html#sentence_transformers.util.semantic_search)
 - * [truncate_embeddings()](../util.html#sentence_transformers.util.truncate_embeddings)
- * [Model Optimization](../util.html#module-sentence_transformers.backend)

*

[export_dynamic_quantized_onnx_model()](../util.html#sentence_transformers.backend.export_dynamic_quantized_onnx_model)

*

[export_optimized_onnx_model()](../util.html#sentence_transformers.backend.export_optimized_onnx_model)

*

[export_static_quantized_openvino_model()](../util.html#sentence_transformers.backend.export_static_quantized_openvino_model)

- * [Similarity Metrics](../util.html#module-sentence_transformers.util)
 - * [cos_sim()](../util.html#sentence_transformers.util.cos_sim)
 - * [dot_score()](../util.html#sentence_transformers.util.dot_score)
 - * [euclidean_sim()](../util.html#sentence_transformers.util.euclidean_sim)
 - * [manhattan_sim()](../util.html#sentence_transformers.util.manhattan_sim)
 - * [pairwise_cos_sim()](../util.html#sentence_transformers.util.pairwise_cos_sim)
 - * [pairwise_dot_score()](../util.html#sentence_transformers.util.pairwise_dot_score)
 - * [pairwise_euclidean_sim()](../util.html#sentence_transformers.util.pairwise_euclidean_sim)

* [`pairwise_manhattan_sim()`](../util.html#sentence_transformers.util.pairwise_manhattan_sim)

__[Sentence Transformers](../../index.html)

* [(../../index.html)]

* Cross Encoder

* [Edit on

GitHub](https://github.com/UKPLab/sentence-transformers/blob/master/docs/package_reference/cross_encoder/index.rst)

* * *

Cross Encoder¶

* [CrossEncoder](cross_encoder.html)

* [CrossEncoder](cross_encoder.html#id1)

* [`CrossEncoder`](cross_encoder.html#sentence_transformers.cross_encoder.CrossEncoder)

*

[`CrossEncoder.fit()`](cross_encoder.html#sentence_transformers.cross_encoder.CrossEncoder.fit)

*

[`CrossEncoder.predict()`](cross_encoder.html#sentence_transformers.cross_encoder.CrossEncoder.predict)

*

[`CrossEncoder.push_to_hub()`](cross_encoder.html#sentence_transformers.cross_encoder.CrossEncoder.push_to_hub)

*

[`CrossEncoder.rank()`](cross_encoder.html#sentence_transformers.cross_encoder.CrossEncoder.r

ank)

*

[`CrossEncoder.save()`](cross_encoder.html#sentence_transformers.cross_encoder.CrossEncoder.save)

*

[`CrossEncoder.save_pretrained()`](cross_encoder.html#sentence_transformers.cross_encoder.CrossEncoder.save_pretrained)

* [Training Inputs](cross_encoder.html#training-inputs)

* [`InputExample`](cross_encoder.html#sentence_transformers.readers.InputExample)

* [Evaluation](evaluation.html)

* [CEBinaryAccuracyEvaluator](evaluation.html#cebinaryaccuracyevaluator)

*

[`CEBinaryAccuracyEvaluator`](evaluation.html#sentence_transformers.cross_encoder.evaluation.CEBinaryAccuracyEvaluator)

* [CEBinaryClassificationEvaluator](evaluation.html#cebinaryclassificationevaluator)

*

[`CEBinaryClassificationEvaluator`](evaluation.html#sentence_transformers.cross_encoder.evaluation.CEBinaryClassificationEvaluator)

* [CECorrelationEvaluator](evaluation.html#cecorrelationevaluator)

*

[`CECorrelationEvaluator`](evaluation.html#sentence_transformers.cross_encoder.evaluation.CECorrelationEvaluator)

* [CEF1Evaluator](evaluation.html#cef1evaluator)

*

[`CEF1Evaluator`](evaluation.html#sentence_transformers.cross_encoder.evaluation.CEF1Evaluator)

* [CESoftmaxAccuracyEvaluator](evaluation.html#cesoftmaxaccuracyevaluator)

[`CESoftmaxAccuracyEvaluator`](evaluation.html#sentence_transformers.cross_encoder.evaluation.CESoftmaxAccuracyEvaluator)

* [CERerankingEvaluator](evaluation.html#cererankingevaluator)

[`CERerankingEvaluator`](evaluation.html#sentence_transformers.cross_encoder.evaluation.CERerankingEvaluator)

[Previous](../sentence_transformer/quantization.html "quantization") [Next](cross_encoder.html "CrossEncoder")

* * *

(C) Copyright 2025.

Built with [Sphinx](https://www.sphinx-doc.org/) using a [theme](https://github.com/readthedocs/sphinx_rtd_theme) provided by [Read the Docs](https://readthedocs.org).