

Module: tf.contrib.tpu

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Defined in `tensorflow/contrib/tpu/__init__.py`.

Ops related to Tensor Processing Units.

Modules

`profiler` module: Classes for TPU trace events.

Classes

`class CrossShardOptimizer` : An optimizer that averages gradients across TPU shards.

`class InfeedQueue` : A helper object to build a device infeed queue.

`class RunConfig` : RunConfig with TPU support.

`class TPUConfig` : TPU related configuration required by `TPUEstimator`.

`class TPUEstimator` : Estimator with TPU support.

`class TPUEstimatorSpec` : Ops and objects returned from a `model_fn` and passed to `TPUEstimator`.

Functions

`batch_parallel(...)` : Shards `computation` along the batch dimension for parallel execution.

`core(...)` : Returns the device name for a core in a replicated TPU computation.

`cross_replica_sum(...)` : An Op to sum inputs across replicated TPU instances. Each

`infeed_dequeue(...)` : A placeholder op for a value that will be fed into the computation.

`infeed_dequeue_tuple(...)` : A placeholder op for multiple values that will be fed into the computation

`initialize_system(...)` : Initializes a distributed TPU system for use with TensorFlow.

`outfeed_enqueue(...)` : An op which emits a single Tensor value from an XLA computation.

`outfeed_enqueue_tuple(...)` : An op which emits multiple Tensor values from an XLA computation.

`outside_all_rewrites(...)` : Experimental API to 'break out' of a `tpu.rewrite()` (or `shard()`, etc.).

`repeat(...)` : Builds a training loop that executes a fixed number of iterations.

`replicate(...)` : Builds a graph operator that runs a replicated TPU computation.

`rewrite(...)` : Rewrites **`computation`** for execution on a TPU system.

`shard(...)` : Shards **`computation`** for parallel execution.

`shutdown_system(...)` : Shuts down a running a distributed TPU system.

`while_loop(...)` : Builds a training loop for TPUs.

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