SNOP

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class
constrained_model_optimization.common.collectors.fast_histogram_collector.**FastHistogram**
(*n_bins: int = 2048*)

Collector for holding histogram of tensors going through it.

get_histogram ( ) → Tuple[numpy.ndarray, numpy.ndarray]

Returns: The histogram (bins and counts) the collector holds.

max ( )

Returns: Maximum value in the histogram.

min ( )

Returns: Minimum value in the histogram.

scale (*scale_factor: numpy.ndarray*)

Scale all statistics in collector by some factor. If the scale is per-channel, the data's validity status change to invalid since histogram was collected per-tensor and not per-channel.

Parameters **scale_factor** – Factor to scale all collector's statistics by.

shift (*shift_value: numpy.ndarray*)

Shift all statistics in collector by some value. If the shifting is per-channel, the data's validity status change to invalid since histogram was collected per-tensor and not per-channel.

Parameters **shift_value** – Value to shift all collector's statistics by.

update (*x: numpy.ndarray*)

Update the current state of the histogram bins and count according to a new tensor that goes through the collector.

Parameters **x** – Tensor going through the collector to update the histogram according to.

constrained_model_optimization.common.collectors.fast_histogram_collector.**interpolate_h**
(*current_bins: numpy.ndarray*, *bins_to_interpolate: numpy.ndarray*, *counts_to_interpolate: numpy.ndarray*)
→ numpy.ndarray

Interpolate a histogram to new bins values. Return the counts of the histogram as if it was collected in current_bins ranges (approximately). :param current_bins: Bins to use for interpolation. :param bins_to_interpolate: Bins to interpolate. :param counts_to_interpolate: Counts of the histogram to interpolate.

Returns Counts of the histogram if it was collected between current_bins values.

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