

Title (en)

QUALITY MONITORING AND HIDDEN QUANTIZATION IN ARTIFICIAL NEURAL NETWORK COMPUTATIONS

Title (de)

QUALITÄTSÜBERWACHUNG UND VERSTECKTE QUANTISIERUNG BEI DER BERECHNUNG VON KÜNSTLICHEN NEURONALEN NETZWERKEN

Title (fr)

SURVEILLANCE DE QUALITÉ ET QUANTIFICATION CACHÉE DANS DES CALCULS DE RÉSEAU NEURONAL ARTIFICIEL

Publication

EP 3924891 A1 20211222 (EN)

Application

EP 19707498 A 20190213

Priority

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Abstract (en)

[origin: WO2020165629A1] Systems and methods for quality monitoring and hidden quantization in artificial neural network (ANN) computations are provided. An example method may include receiving a description of an ANN and input data associated with the ANN, performing, based on a quantization scheme, quantization of the ANN to obtain a quantized ANN, performing, based on the set of input data, ANN computations of the quantized ANN to obtain a result of the ANN computation for the input data, while performing the ANN computations, monitoring, a measure of quality of the ANN computations of the quantized ANN, determining that the measure of quality does not satisfy quality requirements, and in response to the determination, informing a user of an external system of the measure of quality, and adjusting, based on the measure of quality, the quantization scheme to be used in the ANN computations for further input data.

IPC 8 full level

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CPC (source: EP)

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