

Title (en)

ACCELERATING NEURON COMPUTATIONS IN ARTIFICIAL NEURAL NETWORKS BY SKIPPING BITS

Title (de)

BESCHLEUNIGUNG VON NEURONENBERECHNUNGEN IN KÜNSTLICHEN NEURONALEN NETZEN DURCH ÜBERSPRINGEN VON BITS

Title (fr)

ACCÉLÉRATION DE CALCULS NEURONAUX DANS DES RÉSEAUX NEURONAUX ARTIFICIELS PAR SAUT DE BITS

Publication

EP 3948685 A1 20220209 (EN)

Application

EP 19721773 A 20190326

Priority

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Abstract (en)

[origin: WO2020194032A1] Systems and methods for accelerating neuron computations in artificial neural network (ANN) are provided. An example method may comprise receiving, for calculation of a neuron of an ANN, a plurality of first values represented by A bits and a plurality of second values represented by B bits, splitting each value of the plurality of the first values into a set of parts, a count of bits of each of set of parts being less than A, to obtain a set of pluralities of parts, selectively performing mathematical operations on a first plurality of the set of pluralities and the plurality of the second values to obtain a first result, selectively performing further mathematical operations on further pluralities of the set of pluralities and the plurality of the second values to obtain further results, and determining, based on the first result and the further results, an output of the neuron.

IPC 8 full level

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CPC (source: EP)

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Citation (search report)

See references of WO 2020194032A1

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