

Title (en)

OPTIMIZING OPERATIONS IN ARTIFICIAL NEURAL NETWORK

Title (de)

OPTIMIERUNG VON OPERATIONEN IN EINEM KÜNSTLICHEN NEURONALEN NETZWERK

Title (fr)

OPTIMISATION D'OPÉRATIONS DANS UN RÉSEAU DE NEURONES ARTIFICIELS

Publication

**EP 4278304 A1 20231122 (EN)**

Application

**EP 21706384 A 20210113**

Priority

IB 2021050225 W 20210113

Abstract (en)

[origin: WO2022153078A1] Systems and methods for optimizing operations in artificial neural network computations are disclosed. An example method may include selecting a first input value from a set of input values to a neuron, selecting, based on a criterion, a second input value from the set of input values, acquiring a first weight from a set of weights, acquiring a second weight from a set of weights, performing, in parallel, a first mathematical operation on the first input value and the first weight to obtain a first result, a second mathematical operation based on the second input value and the second weight to obtain a second result, the second mathematical operation requiring less number of bits than the first mathematical operation, the second number of bits being less than the first number of bits, and computing an output of the neuron based on the first result and the second result.

IPC 8 full level

**G06N 3/063** (2023.01); **G06N 3/04** (2023.01)

CPC (source: EP)

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Citation (search report)

See references of WO 2022153078A1

Designated contracting state (EPC)

AL AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IS IT LI LT LU LV MC MK MT NL NO PL PT RO RS SE SI SK SM TR

Designated extension state (EPC)

BA ME

Designated validation state (EPC)

KH MA MD TN

DOCDB simple family (publication)

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