

Title (en)

ELECTRONIC APPARATUS AND CONTROL METHOD THEREOF

Title (de)

ELEKTRONISCHE VORRICHTUNG UND STEUERUNGSVERFAHREN DAFÜR

Title (fr)

APPAREIL ÉLECTRONIQUE ET PROCÉDÉ DE COMMANDE ASSOCIÉ

Publication

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Application

EP 18866233 A 20180608

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- US 201762571599 P 20171012
- KR 20180022960 A 20180226
- KR 2018006509 W 20180608

Abstract (en)

[origin: KR20190041388A] An electronic apparatus is disclosed to perform deep learning. The electronic apparatus includes: a storage configured to store target data and kernel data; and a processor including a plurality of processing elements that are arranged in a matrix shape. The processor is configured to input, to each of the plurality of processing elements, a first non-zero element from among a plurality of first elements included in the target data, and to input, to each of a plurality of first processing elements included in a first row from among the plurality of processing elements, a second non-zero element from among the plurality of elements included in the kernel data. Each of the plurality of first processing elements is configured to perform an operation between the input first non-zero element and the input second non-zero element, based on depth information of the first non-zero element and depth information of the second non-zero element. The present invention can skip calculation for portions of the target data and the kernel data according to the zero elements included in the target data to increase a convolution calculation speed.

IPC 8 full level

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CPC (source: EP KR)

G06F 17/153 (2013.01 - EP); **G06N 3/04** (2013.01 - KR); **G06N 3/045** (2023.01 - EP); **G06N 3/063** (2013.01 - EP KR); **G06N 3/08** (2013.01 - KR); **G06N 3/084** (2013.01 - EP)

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