

Title (en)

SYSTEM AND METHOD FOR THE QUALITY ASSURANCE OF DATA-BASED MODELS

Title (de)

SYSTEM UND VERFAHREN ZUR QUALITÄTSZUSICHERUNG VON DATENBASIERTEN MODELLEN

Title (fr)

SYSTÈME ET PROCÉDÉ D'ASSURANCE QUALITÉ DE MODÈLES BASÉE SUR DES DONNÉES

Publication

**EP 4081950 A1 20221102 (DE)**

Application

**EP 20830273 A 20201223**

Priority

- EP 19219525 A 20191223
- EP 20176326 A 20200525
- EP 2020087822 W 20201223

Abstract (en)

[origin: WO2021130340A1] The invention relates to a system that has a classifier that is formed by a discriminative neural network and realises a binary class model or a multi-class model. The system also has a model-based sample generator that is formed by a generative neural network. Both the classifier and the model-based sample generator are – for a corresponding class – trained with the same training data records and therefore embody models that correspond to one another for this class. The invention also relates to a method for determining a quality criterion for input data records for a classifier with a discriminative neural network. The classifier is trained with training data records and embodies a classification model for a class. According to the method, first a model-based sample generator with a generative neural network is provided and trained with the same training data records with which the classifier was trained. Then, by means of the trained model-based sample generators and an input data record based on random values, an artificial data record is generated that is representative of the classification model embodied by the classifier. The artificial data record generated by the trained generator or at least one parameter derived therefrom is used to check the input data records with regard to their suitability for a classification or regression.

IPC 8 full level

**G06N 3/04** (2006.01); **G06N 3/08** (2006.01)

CPC (source: EP US)

**G06N 3/045** (2023.01 - EP US); **G06N 3/047** (2023.01 - EP); **G06N 3/08** (2013.01 - EP); **G06N 3/088** (2013.01 - US)

Citation (search report)

See references of WO 2021130340A1

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)

**EP 3843011 A1 20210630**; CN 114930346 A 20220819; EP 4081950 A1 20221102; US 2023023058 A1 20230126;  
WO 2021130340 A1 20210701

DOCDB simple family (application)

**EP 20176326 A 20200525**; CN 202080088573 A 20201223; EP 2020087822 W 20201223; EP 20830273 A 20201223;  
US 202017788025 A 20201223