

Title (en)

SYSTEMS AND METHODS FOR PROVIDING A PRIVATE MULTI-MODAL ARTIFICIAL INTELLIGENCE PLATFORM

Title (de)

SYSTÈME UND VERFAHREN ZUR BEREITSTELLUNG EINER PRIVATEN MULTIMODALEN PLATTFORM MIT KÜNSTLICHER INTELLIGENZ

Title (fr)

SYSTÈMES ET PROCÉDÉS DE FOURNITURE D'UNE PLATEFORME D'INTELLIGENCE ARTIFICIELLE MULTIMODALE PRIVÉE

Publication

EP 4147178 A4 20231018 (EN)

Application

EP 21799990 A 20210506

Priority

- US 202063020930 P 20200506
- US 202117180475 A 20210219
- US 2021031012 W 20210506

Abstract (en)

[origin: WO2021226302A1] A system and method are disclosed for providing a private multi-modal artificial intelligence platform. The method includes splitting a neural network into a first client-side network, a second client-side network and a server-side network and sending the first client-side network to a first client. The first client-side network processes first data from the first client, the first data having a first type. The method includes sending the second client-side network to a second client. The second client-side network processes second data from the second client, the second data having a second type. The first type and the second type have a common association. Forward and back propagation occurs between the client side networks and disparate data types on the different client side networks and the server-side network to train the neural network.

IPC 8 full level

G06N 3/063 (2023.01); **G06N 3/084** (2023.01); **G06N 3/098** (2023.01)

CPC (source: EP KR)

G06N 3/045 (2023.01 - KR); **G06N 3/048** (2023.01 - KR); **G06N 3/063** (2013.01 - EP); **G06N 3/084** (2013.01 - EP KR);
G06N 3/098 (2023.01 - EP KR)

Citation (search report)

- [I] CHANDRA THAPA ET AL: "SplitFed: When Federated Learning Meets Split Learning", ARXIV.ORG, CORNELL UNIVERSITY LIBRARY, 201 OLIN LIBRARY CORNELL UNIVERSITY ITHACA, NY 14853, 25 April 2020 (2020-04-25), XP081652857
- [A] DIANBO LIU ET AL: "Confederated Machine Learning on Horizontally and Vertically Separated Medical Data for Large-Scale Health System Intelligence", ARXIV.ORG, CORNELL UNIVERSITY LIBRARY, 201 OLIN LIBRARY CORNELL UNIVERSITY ITHACA, NY 14853, 4 October 2019 (2019-10-04), XP081510932
- [A] DU ZHAOYANG ET AL: "Federated Learning for Vehicular Internet of Things: Recent Advances and Open Issues", IEEE OPEN JOURNAL OF THE COMPUTER SOCIETY, IEEE, vol. 1, 5 May 2020 (2020-05-05), pages 45 - 61, XP011795454, DOI: 10.1109/OJCS.2020.2992630
- [A] PRANEETH VEPAKOMMA ET AL: "Split learning for health: Distributed deep learning without sharing raw patient data", ARXIV.ORG, CORNELL UNIVERSITY LIBRARY, 201 OLIN LIBRARY CORNELL UNIVERSITY ITHACA, NY 14853, 3 December 2018 (2018-12-03), XP080988124
- See also references of WO 2021226302A1

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

DOCDB simple family (publication)

WO 2021226302 A1 20211111; CA 3177679 A1 20211111; EP 4147178 A1 20230315; EP 4147178 A4 20231018; JP 2023524289 A 20230609;
KR 20230005900 A 20230110

DOCDB simple family (application)

US 2021031012 W 20210506; CA 3177679 A 20210506; EP 21799990 A 20210506; JP 2022567077 A 20210506; KR 20227040910 A 20210506