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(54) Title: SYSTEM, METHOD, AND COMPUTER PROGRAM PRODUCT FOR INCREMENTAL LEARNING

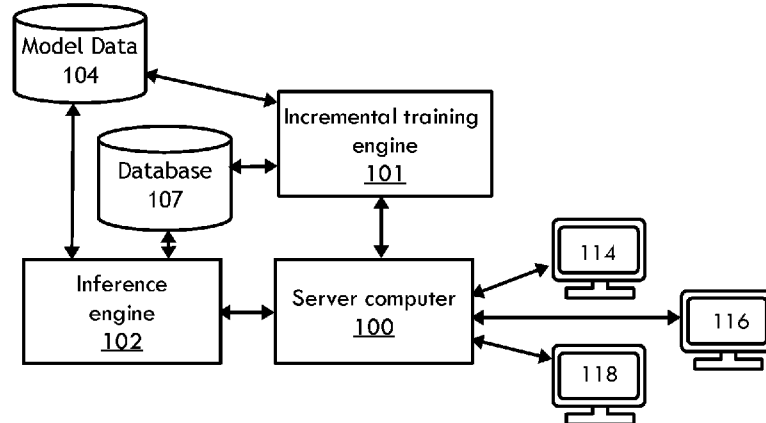


FIG. 1



(57) Abstract: Systems, methods, and computer program products for incremental learning are provided. A system includes at least one processor programmed or configured to execute a first machine-learning model for each input of a plurality of inputs associated with a plurality of requests in a production environment, determine to train the first machine-learning model based on at least one rule, in response to determining to train the first machine-learning model, creating a second machine-learning model including weights from the first machine-learning model, train the second-machine learning model with the model data stored in the at least one data storage device, determine whether to replace the first machine-learning model with the second machine-learning model, in response to determining to replace the first machine-learning model with the second machine-learning model, and replace the first machine-learning model with the second machine-learning model in the production environment.



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- *as to the applicant's entitlement to claim the priority of the earlier application (Rule 4.17(iii))*

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CPC - INV. G06N 3/08, G06N 3/0985, G06N 3/02, G06N 20/00

ADD. G06F 17/00

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)
 See Search History document

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched
 See Search History document

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)
 See Search History document

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X ---	US 2017/0193402 A1 (DASSAULT SYSTEMES) 6 July 2017 (06.07.2017), entire document, especially para [0033]-[0035], [0037], [0059], [0061], [0066], [0079], [0083], [0085]-[0086], [0095], [0097]-[0098], [0100], [0111]-[0112], [0118].	1-2, 4, 8-9, 11, 15-16, 18
Y		3, 5-7, 10, 12-14, 17, 19-20
Y	US 2020/0184376 A1 (The Board of Trustees of the University of Illinois) 11 June 2020 (11.06.2020), entire document, especially para [0002], [0004], [0083], [0092].	3, 10, 17
Y	US 2015/0324686 A1 (QUALCOMM Incorporated) 12 November 2015 (12.11.2015), entire document, especially para [0006], [0048], [0112]-[0113], [0117], [0185]-[0186].	5-6, 12-13, 19-20
Y	US 2021/0374518 A1 (NVIDIA Corporation) 2 December 2021 (02.12.2021), entire document, especially para [0057], [0061], [0532].	7, 14

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