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16/927,501 13 July 2020 (13.07.2020) US(71) Applicant: **INTERNATIONAL BUSINESS MACHINES CORPORATION** [US/US]; New Orchard Road, Armonk, New York, 10504 (US).(71) Applicants (for MG only): **IBM UNITED KINGDOM LIMITED** [GB/GB]; PO Box 41, North Harbour, Portsmouth Hampshire PO6 3AU (GB). **IBM (CHINA)****INVESTMENT COMPANY LIMITED** [CN/CN]; 25/F, Pangu Plaza, No. 27, Central North 4th Ring Road, Chaoyang District, Beijing 100101 (CN).(72) Inventors: **SEKIGUCHI, Kazuki**; IBM Japan Limited, 19-21 Nihonbashi-hakozakicho, Chuo-ku, Tokyo 13 103-8510 (JP). **TERUI, Fumihiko**; IBM Japan Limited, 19-21 Nihonbashi-hakozakicho, Chuo-ku, Tokyo 13 103-8510 (JP). **DEY, Pinaki, Chandra**; IBM Japan Limited, 19-21 Nihonbashi-hakozakicho, Chuo-ku, Tokyo 13 103-8510 (JP).(74) Agent: **SHAW, Anita**; IBM United Kingdom Limited, Intellectual Property Law, Hursley Park, Hursley, Winchester Hampshire SO21 2JN (GB).

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(54) Title: METHODS FOR DETECTING AND MONITORING BIAS IN SOFTWARE APPLICATION USING ARTIFICIAL INTELLIGENCE AND DEVICES THEREOF

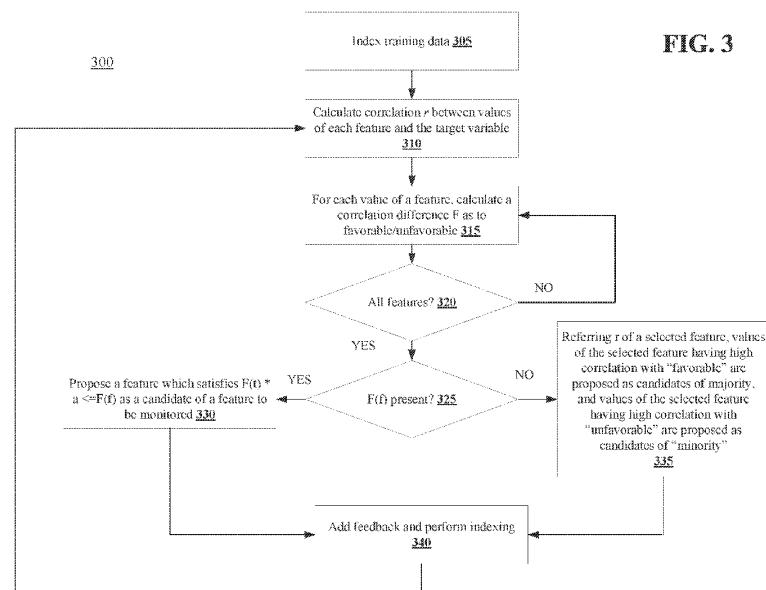


FIG. 3

(57) Abstract: A computer-implemented method for detecting and monitoring bias in an application includes index training data and obtaining a plurality of correlation values of one or more features in the indexed training data with a target variable. For each of the one or more features, a first value and a favorable result and a second value along with the unfavorable result is calculated. An absolute value of a difference between the calculated first value and the calculated second value is calculated. A total sum of the calculated absolute value of the plurality of correlation values of the one of the one or more features is calculated.

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