



(51) International Patent Classification:

G06N 3/02 (2006.01) *G06K 9/62* (2006.01)
G16H 30/40 (2018.01) *G06T 7/00* (2017.01)
G06N 20/00 (2019.01) *G16H 50/20* (2018.01)

(21) International Application Number:

PCT/SG2020/050057

(22) International Filing Date:

07 February 2020 (07.02.2020)

(25) Filing Language:

English

(26) Publication Language:

English

(30) Priority Data:

10201901083Y 08 February 2019 (08.02.2019) SG

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(54) Title: METHOD AND SYSTEM FOR CLASSIFICATION AND VISUALISATION OF 3D IMAGES

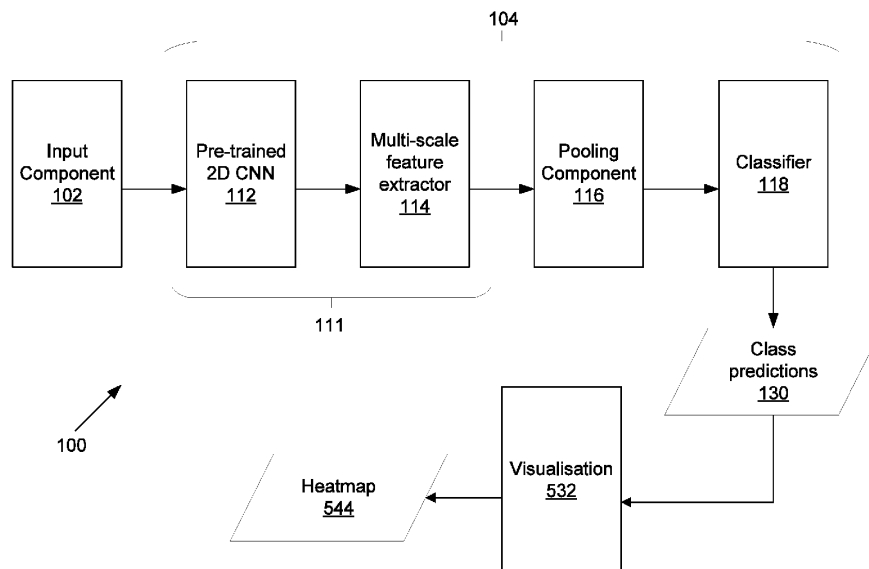


Figure 1

(57) Abstract: A computer-aided diagnosis (CAD) system for classification and visualisation of a 3D medical image comprises a classification component comprising a 2D convolutional neural network (CNN) that is configured to generate a prediction of one or more classes for 2D slices of the 3D medical image. The system also comprises a visualisation component that is configured to: determine, for a target class of said one or more classes, which slices belong to the target class; for each identified slice, determine, by back-propagation to an intermediate layer of the CNN, a contribution of each pixel of the identified slice to classification of the identified slice as belonging to the target class; and generate a heatmap that provides a visual indication of the contributions of respective pixels.

[Continued on next page]

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(81) **Designated States** (*unless otherwise indicated, for every kind of national protection available*): AE, AG, AL, AM, AO, AT, AU, AZ, BA, BB, BG, BH, BN, BR, BW, BY, BZ, CA, CH, CL, CN, CO, CR, CU, CZ, DE, DJ, DK, DM, DO, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, GT, HN, HR, HU, ID, IL, IN, IR, IS, JO, JP, KE, KG, KH, KN, KP, KR, KW, KZ, LA, LC, LK, LR, LS, LU, LY, MA, MD, ME, MG, MK, MN, MW, MX, MY, MZ, NA, NG, NI, NO, NZ, OM, PA, PE, PG, PH, PL, PT, QA, RO, RS, RU, RW, SA, SC, SD, SE, SG, SK, SL, ST, SV, SY, TH, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, WS, ZA, ZM, ZW.

(84) **Designated States** (*unless otherwise indicated, for every kind of regional protection available*): ARIPO (BW, GH, GM, KE, LR, LS, MW, MZ, NA, RW, SD, SL, ST, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, RU, TJ, TM), European (AL, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HR, HU, IE, IS, IT, LT, LU, LV, MC, MK, MT, NL, NO, PL, PT, RO, RS, SE, SI, SK, SM, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, KM, ML, MR, NE, SN, TD, TG).

Declarations under Rule 4.17:

— *of inventorship (Rule 4.17(iv))*

Published:

— *with international search report (Art. 21(3))*
 — *in black and white; the international application as filed contained color or greyscale and is available for download from PATENTSCOPE*