

CLAIMS

What is claimed is:

1. A computer-implemented method for identity document processing, comprising:

capturing, by an image acquisition module, a first image of an identity document (ID) from a first effective position, such that texts on the ID can be extracted from the first image;

capturing, by the image acquisition module, a second image of the ID from a second effective position, such that the second image comprises the ID and a background thereof;

extracting the texts on the ID from the first image; and

authenticating the ID, by an authentication module, based on the first image and the second image, comprising:

determining whether the ID in the second image is a physical ID based on the background in the second image; and

comparing the IDs in the first image and the second image and determining whether the IDs are the same, wherein comparing the IDs comprises performing an ID type classification process.

2. The method as claimed in claim 1, wherein the first effective position corresponds to a first effective distance from the image acquisition module to the ID and the second effective position corresponds to a second effective distance from the image acquisition module to the ID, and wherein the second effective distance is longer than the first effective distance.

3. The method as claimed in claim 1 or 2, wherein authenticating the ID comprises performing a binary classification of the ID using a Convolutional Neural Network (CNN)-based classifier.

4. The method as claimed in claim 3, further comprising training the CNN-based classifier based on historical data of authentic and non-authentic ID images, wherein the authentic and non-authentic ID images comprise IDs and backgrounds thereof.

5. The method as claimed in claim 4, wherein the non-authentic ID image comprises an image of a screenshot of an ID, and the background thereof comprises a boundary of a screen.

6. The method as claimed in claim 4, wherein the non-authentic ID image comprises an image of a paper printed ID, and the background thereof comprises a boundary of paper.
7. The method as claimed in claim 4, further comprising:
updating the historical data by including the second image and a result of authenticating the ID in the second image.
8. The method as claimed in any one of the preceding claims, wherein extracting the text on the ID from the first image is based on an optical character recognition (OCR) algorithm.
9. The method as claimed in any one of the preceding claims, wherein authenticating the ID further comprises authenticating the ID based on the texts extracted from the first image.
10. The method as claimed in any one of the preceding claims, wherein comparing the IDs further comprises performing a face recognition process.
11. A system for identity document processing, the system comprising:
one or more processors; and
one or more computer-readable memories coupled to the one or more processors and having instructions stored thereon that are executable by the one or more processors to perform the method of any one of claims 1 to 10.
12. An apparatus for identity document processing, the apparatus comprising a plurality of modules for performing the method of any one of claims 1 to 10.