CLAIMS

1. A component identification method, comprising:

inputting a first image into a set identification model to obtain at least one user interface UI block in the first image outputted by the set identification model, wherein the first image is determined on the basis of a first visual mockup, the set identification model is used for identifying the at least one UI block in an inputted image, and each UI block at least comprises an image region obtained by UI component rendering;

determining, among the nodes of a document object model DOM corresponding to the first visual mockup, a first node corresponding to each UI block in the at least one UI block;

inputting an image corresponding to each first node into a set classification model to obtain a UI component type corresponding to the first node outputted by the set classification model, the set classification model is used for determining a UI component type corresponding to an inputted image.

2. The method according to claim 1, wherein determining, among the nodes of a document object model DOM corresponding to the first visual mockup, a first node corresponding to each UI block in the at least one UI block includes:

traversing the nodes of a document object model DOM corresponding to the first visual mockup;

when a region overlap rate is greater than a first set threshold, determining a node corresponding to the region overlap rate as a first node corresponding to a first UI block, wherein

the region overlap rate represents the overlap rate between a second image and the first UI block, and the second image is obtained by cropping the first visual mockup according to node information of the node.

3. The method according to claim 1, wherein prior to inputting a first image into a set identification model, the method further comprises:

determining, through edge detection, at least two first rectangular regions in the first visual mockup;

cropping the first visual mockup based on at least one first rectangular region to obtain a corresponding first image.

4. The method according to claim 3, wherein cropping the first visual mockup based on at least one first rectangular region includes:

merging the first rectangular regions which are adjacent in a set direction to obtain a second rectangular region, wherein the length of the second rectangular region in the set direction is smaller than a second set threshold;

cropping the first visual mockup based on the second rectangular region.

5. The method according to claim 1, wherein inputting an image corresponding to each first node into a set classification model includes at least one of:

inputting a second image which is obtained by cropping the first visual mockup according to the node information of the first node into the set classification model; and,

inputting a third image which is obtained by cropping the first visual mockup according to the UI block corresponding to the first node into the set classification model.

6. The method according to claim 1, wherein prior to inputting a first image into a set identification model, the method further comprises:

training the set identification model and the set classification model based on a second visual mockup which is accordingly provided with at least one first annotation, wherein

the first annotation includes first position information of an image region that can

be obtained by rendering with UI components and a corresponding first label, the first position information is used for describing the position of the image region in the second visual mockup, and the first label is used for describing the type of the UI components.

7. The method according to claim 6, wherein training the set identification model and the set classification model based on a second visual mockup which is accordingly provided with at least one first annotation includes:

cropping the second visual mockup based on each first annotation to obtain corresponding fourth images, wherein the fourth images are accordingly provided with first label;

replacing the first label of the second visual mockup with second labels to obtain fifth images, wherein the second labels represents that the corresponding image regions are UI blocks;

training the set classification model based on the fourth images;

training the set identification model based on the fifth images.

8. The method according to claim 7, wherein prior to training the set classification model based on the fourth images, the method further comprises:

when the number of the fourth images corresponding to at least one first label is smaller than a third set threshold, generating a page image containing corresponding a UI component type, and obtaining a corresponding fourth image based on the generated page image.

9. The method according to claim 8, wherein generating a page image containing a corresponding UI component type includes at least one of:

rendering component codes of the corresponding UI component type on a set interface to obtain a page image containing a corresponding UI component type; and,

obtaining a third visual mockup with a visual mockup generation code tool to

obtain a page image containing the corresponding UI component type.

10. An electronic device, comprising:

a processor and

a memory for storing a computer program that can run on the processor,

wherein

when running the computer program, the processor is used to execute steps of a component identification method, the steps comprising:

inputting a first image into a set identification model to obtain at least one user interface UI block in the first image outputted by the set identification model, wherein the first image is determined on the basis of a first visual mockup, the set identification model is used for identifying the at least one UI block in an inputted image, and each UI block at least comprises an image region obtained by UI component rendering;

determining, among the nodes of a document object model DOM corresponding to the first visual mockup, a first node corresponding to each UI block in the at least one UI block;

inputting an image corresponding to each first node into a set classification model to obtain a UI component type corresponding to the first node outputted by the set classification model, the set classification model is used for determining a UI component type corresponding to an inputted image.

11. The electronic device according to claim 10, wherein determining, among the nodes of a document object model DOM corresponding to the first visual mockup, a first node corresponding to each UI block in the at least one UI block includes:

traversing the nodes of a document object model DOM corresponding to the first visual mockup;

when a region overlap rate is greater than a first set threshold, determining a node corresponding to the region overlap rate as a first node corresponding to a first

UI block, wherein

the region overlap rate represents the overlap rate between a second image and the first UI block, and the second image is obtained by cropping the first visual mockup according to node information of the node.

12. The electronic device according to claim 10, wherein prior to inputting a first image into a set identification model, the method further comprises:

determining, through edge detection, at least two first rectangular regions in the first visual mockup;

cropping the first visual mockup based on at least one first rectangular region to obtain a corresponding first image.

13. The electronic device according to claim 12, wherein cropping the first visual mockup based on at least one first rectangular region includes:

merging the first rectangular regions which are adjacent in a set direction to obtain a second rectangular region, wherein the length of the second rectangular region in the set direction is smaller than a second set threshold;

cropping the first visual mockup based on the second rectangular region.

14. The electronic device according to claim 10, wherein inputting an image corresponding to each first node into a set classification model includes at least one of:

inputting a second image which is obtained by cropping the first visual mockup according to the node information of the first node into the set classification model; and,

inputting a third image which is obtained by cropping the first visual mockup according to the UI block corresponding to the first node into the set classification model.

15. The electronic device according to claim 10, wherein prior to inputting a first image into a set identification model, the method further comprises:

training the set identification model and the set classification model based on a second visual mockup which is accordingly provided with at least one first annotation, wherein

the first annotation includes first position information of an image region that can be obtained by rendering with UI components and a corresponding first label, the first position information is used for describing the position of the image region in the second visual mockup, and the first label is used for describing the type of the UI components.

16. The electronic device according to claim 15, wherein training the set identification model and the set classification model based on a second visual mockup which is accordingly provided with at least one first annotation includes:

cropping the second visual mockup based on each first annotation to obtain corresponding fourth images, wherein the fourth images are accordingly provided with first label;

replacing the first label of the second visual mockup with second labels to obtain fifth images, wherein the second labels represents that the corresponding image regions are UI blocks;

training the set classification model based on the fourth images;

training the set identification model based on the fifth images.

17. The electronic device according to claim 16, wherein prior to training the set classification model based on the fourth images, the method further comprises:

when the number of the fourth images corresponding to at least one first label is smaller than a third set threshold, generating a page image containing corresponding a UI component type, and obtaining a corresponding fourth image based on the generated page image.

18. The electronic device according to claim 17, wherein generating a page image containing a corresponding UI component type includes at least one of:

rendering component codes of the corresponding UI component type on a set interface to obtain a page image containing a corresponding UI component type; and,

obtaining a third visual mockup with a visual mockup generation code tool to obtain a page image containing the corresponding UI component type.

19. A storage medium storing thereon a computer program which performs steps of the method according to claim 1 when executed by the processor.