WHAT IS CLAIMED IS

1. A method for image processing, comprising:

obtaining an image acquired by a camera with a height from the ground satisfying a first condition;

determining multiple regions of the image, including:

determining a reference area of the image, wherein a deformation degree of the reference area satisfies a second condition, and the multiple regions contain a set of regions which contains a first region and a second region;

identifying one or more reference subjects in the reference area;

determining a target reference subject from the one or more reference subjects in the reference area that satisfies a third condition;

determining an edge of the first region in the image based on an edge of a reference matching area which matches to the target reference subject;

determining an edge of the second region in the image based on an edge of the reference area; and

determining the set of regions according to the edge of the first region and the edge of the second region in the image;

identifying at least one subject in the multiple regions; and

determining an identification result of the image based on a subject among the at least one subject, at least a portion of the subject being in an overlapping area of the multiple regions, wherein the overlapping area is configured as an area in the image that appears in more than one region among the multiple regions.

2. The method of claim 1, wherein each of at least one matching area in the image is enclosed in a region of the multiple regions, and the at least one matching area matches to the at least one subjects.

3. The method of claim 1, wherein the third condition is related to a position of each of the one or more reference subjects in the reference area.

4. The method of claim 1 or claim 3, wherein the third condition is related to an identification confidence level of each of the one or more reference subjects in the reference area.

5. The method of any one of claims 1-4, wherein the determining the identification result of the image based on the subject among the at least one subject, the at least a portion of the subject being in the overlapping area of the multiple regions includes:

determining, based on an intersection over union (IOU) of each of the at least one subject in the multiple regions, the subject; and

determining the identification result of the image according to an identification confidence level of the subject.

6. The method of any one of claims 1-5, wherein the identifying the at least one subject in the multiple regions further includes:

for a region of the multiple regions,

obtaining an identification frame in the region based on an identification algorithm, wherein the identification frame has a corresponding relationship with a matching area which matches to the target in the region;

correcting the identification frame to obtain a corrected identification frame based on an angle between an actual horizontal line of the matching area corresponding to the identification frame and a standard horizontal line; and

identifying the subject in the region according to the corrected identification frame.

7. The method of any one of claims 1-6, wherein the at least one subject includes a vehicle, the ground captured by the camera includes a parking area, and the method further includes:

determining a vacant parking space in the parking area according to the identification result of the image.

8. The method of claim 1, wherein the second condition is that the deformation degree of the reference area in the image is less than a threshold.

9. The method of claim 1, wherein the third condition is that the deformation degree of the target reference subject is within a preset threshold range.

10. The method of claim 1, further comprising:

obtaining a reference line of the image;

designating an edge of the image which intersects with the reference line as an edge of the reference area; and

determining, based on a pixel ratio of a length to a width of the image, an area ratio of two portions of the reference area on two sides of the reference line.

11. The method of claim 10, wherein the reference area includes a first reference area configured to determine a region on one side of the reference line and a second reference area configured to determine another region on the other side of the reference line.

12. A system for image processing, comprising:

at least one storage device including a set of instructions; and

at least one processor configured to communicate with the at least one storage device, wherein when executing the set of instructions, the at least one processor is configured to direct the system to perform operations including:

obtaining an image acquired by a camera with a height from the ground satisfying a first condition;

determining multiple regions of the image, including:

determining a reference area of the image, wherein a deformation degree of the reference area satisfies a second condition, and the multiple regions contain a set of regions which contains a first region and a second region;

identifying one or more reference subjects in the reference area;

determining a target reference subject from the one or more reference subjects in the reference area that satisfies a third condition;

determining an edge of the first region in the image based on an edge of a reference matching area which matches to the target reference subject;

determining an edge of the second region in the image based on an edge of the reference area; and

determining the set of regions according to the edge of the first region and the edge of the second region in the image;

identifying at least one subject in the multiple regions; and

determining an identification result of the image based on a subject among the at least one subject, at least a portion of the subject being in an overlapping area of the multiple regions, wherein the overlapping area is configured as an area in the image that appears in more than one region among the multiple regions.

13. The system of claim 12, wherein each of at least one matching area in the image is enclosed in a region of the multiple regions, and the at least one matching area matches to the at least one subjects.

14. The system of claim 12, wherein the third condition is related to a position of each of the one or more reference subjects in the reference area.

15. The system of claim 12 or claim 14, wherein the third condition is related to an identification confidence level of each of the one or more reference subjects in the identification area.

16. The system of any one of claims 12-15, wherein the determining the identification result of the image based on the subject among the at least one subject, the at least a portion of the subject being in the overlapping area of the multiple regions includes:

determining, based on an intersection over union (IOU) of each of the at least one subject in the multiple regions, the subject; and

determining the identification result of the image according to an identification confidence level of the subject.

17. The system of any one of claims 12-16, wherein the identifying the at least one subject in the multiple regions further includes:

for a region of the multiple regions,

obtaining an identification frame in the region based on an identification algorithm, wherein the identification frame has a corresponding relationship with a matching area which matches to the target in the region;

correcting the identification frame to obtain a corrected identification frame based on an angle between an actual horizontal line of the matching area corresponding to the identification frame and a standard horizontal line; and

identifying the subject in the region according to the corrected identification frame.

18. The system of any one of claims 12-17, wherein the at least one subject includes a vehicle, the ground captured by the camera includes a parking area, and the method further includes:

determining a vacant parking space in the parking area according to the identification result of the image.

19. A system for image processing, comprising:

a obtaining module configured to obtain an image acquired by a camera with a height from the ground satisfying a first condition;

a segmenting module configured to determine multiple regions of the image, wherein to determine the multiple regions of the image, the segmenting module is further configured to:

determine a reference area of the image, wherein a deformation degree of the reference area satisfies a second condition, and the multiple regions contain a set of regions which contains a first region and a second region;

identify one or more reference subjects in the reference area;

determine a target reference subject from the one or more reference subjects in the reference area that satisfies a third condition;

determine an edge of the first region in the image based on an edge of a reference matching area which matches to the target reference subject;

determine an edge of the second region in the image based on an edge of the reference area; and

determine the set of regions according to the edge of the first region and the edge of the second region in the image;

an identifying module configured to identify at least one subject in the multiple regions; and

a determining module configured to determine an identification result of the image based on a subject among the at least one subject, at least a portion of the subject being in an overlapping area of the multiple regions, wherein the overlapping area is configured as an area in the image that appears in more than one region among the multiple regions.

20. A non-transitory computer readable medium, comprising executable instructions that, when executed by at least one processor, direct the at least one processor to perform a method, the method comprising:

obtaining an image acquired by a camera with a height from the ground satisfying a first condition;

determining multiple regions of the image, including:

determining a reference area of the image, wherein a deformation degree of the reference area satisfies a second condition, and the multiple regions contain a set of regions which contains a first region and a second region;

identifying one or more reference subjects in the reference area;

determining a target reference subject from the one or more reference subjects in the reference area that satisfies a third condition;

determining an edge of the first region in the image based on an edge of a reference matching area which matches to the target reference subject;

determining an edge of the second region in the image based on an edge of the reference area; and

determining the set of regions according to the edge of the first region and the edge of the second region in the image;

identifying at least one subject in the multiple regions; and

determining an identification result of the image based on a subject among the at least one subject, at least a portion of the subject being in an overlapping area of the multiple regions, wherein the overlapping area is configured as an area in the image that appears in more than one region among the multiple regions.