CLAIMS

1. An object tracking method, comprising:

detecting, according to a target object in a reference frame image in a video, at least one candidate object in a current frame image in the video;

obtaining an interference object in at least one previous frame image in the video;

adjusting filtering information of the at least one candidate object according to the obtained interference object; and

determining one of the at least one candidate object whose filtering information satisfies a predetermined condition as the target object in the current frame image.

2. The method according to claim 1, wherein the current frame image in the video is after the reference frame image;

the at least one previous frame image includes: the reference frame image, and/or at least one intermediate frame image located between the reference frame image and the current frame image.

3. The method according to claim 1 or 2, further comprising:

determining one or more of the at least one candidate object as interference objects in the current frame image, the one or more of the at least one candidate object not being determined as the target object.

4. The method according to any one of claims 1 to 3, wherein adjusting the filtering information of the at least one candidate object according to the obtained interference object comprises:

for each of the at least one candidate object,

determining a first similarity between the candidate object and the obtained interference object; and

adjusting the filtering information of the candidate object according to the first similarity.

5. The method according to claim 4, wherein determining the first similarity between the candidate object and the obtained interference object comprises:

determining the first similarity according to a feature of the candidate object and a feature of the obtained interference object.

6. The method according to any one of claims 1 to 5, further comprising:

obtaining the target object in at least one intermediate frame image between the reference frame image and the current frame image in the video; and

optimizing the filtering information of the at least one candidate object according to the target object in the at least one intermediate frame image.

7. The method according to claim 6, wherein optimizing the filtering information of the at least one candidate object according to the target object in the at least one intermediate frame image comprises:

for each of the least one candidate object,

determining a second similarity between the candidate object and the target object in the at least one intermediate frame image; and

optimizing the filtering information of the candidate object according to the second similarity.

8. The method according to claim 7, wherein determining the second similarity between the candidate object and the target object in the at least one intermediate frame image comprises:

determining the second similarity according to a feature of the candidate object and a feature of the target object in the at least one intermediate frame image.

9. The method according to any one of claims 1 to 8, wherein detecting at least one candidate object in the current frame image in the video according to the target object in the reference frame image in the video comprises:

determining a correlation between an image of the target object in the reference frame image and the current frame image; and

obtaining bounding boxes and the filtering information of the at least one candidate object in the current frame image according to the correlation.

10. The method according to claim 9, wherein determining the correlation between the image of the target object in the reference frame image and the current frame image comprises:

determining the correlation according to a first feature of the image of the target object in the reference frame image and a second feature of the current frame image.

11. The method according to claim 9 or 10, wherein determining one of the at least one candidate object whose filtering information satisfies the predetermined condition as the target object in the current frame image comprises:

determining a bounding box of the one of the at least one candidate object whose filtering information satisfies the predetermined condition as a bounding box of the target object in the current frame image;

wherein the method further comprises: after determining the bounding box of the candidate object whose filtering information satisfies the predetermined condition as the bounding box of the target object in the current frame image, displaying the bounding box of the target object in the current frame image.

12. The method according to any one of claims 1 to 11, further comprising: before detecting at least one candidate object in the current frame image in the video according to the target object in the reference frame image in the video,

obtaining a search region in the current frame image;

detecting at least one candidate object in the current frame image in the video according to the target object in the reference frame image in the video comprises:

detecting, within the search region in the current frame image and according to the target object in the reference frame image in the video, the at least one candidate object in the current frame image in the video.

13. The method according to any one of claims 1 to 12, further comprising: after determining one of the at least one candidate object whose filtering information satisfies the predetermined condition as the target object in the current frame image,

determining a search region in a next frame image adjacent to the current frame image in the video according to filtering information of the target object in the current frame image.

14. The method according to claim 13, wherein determining the search region in the next frame image adjacent to the current frame image in the video according to the filtering information of the target object in the current frame image comprises:

detecting whether the filtering information of the target object is less than a first predetermined threshold;

in response to determining that the filtering information of the target object is less than the first predetermined threshold, gradually extending the search region according to a predetermined step length until the extended search region covers the current frame

image, and using the extended search region as the search region in the next frame image adjacent to the current frame image; and/or

in response to determining that the filtering information of the target object is greater than or equal to the first predetermined threshold, taking the next frame image adjacent to the current frame image in the video as a current frame image, and obtaining a search region in the current frame image.

15. The method according to claim 14, further comprising: after gradually extending the search region according to the predetermined step length until the extended search region covers the current frame image,

taking the next frame image adjacent to the current frame image in the video as a current frame image;

determining the target object in the current frame image within the extended search region;

detecting whether filtering information of the target object is greater than a second predetermined threshold; wherein the second predetermined threshold is greater than the first predetermined threshold;

in response to determining that the filtering information of the target object is greater than the second predetermined threshold, obtaining a search region in the current frame image; and/or

in response to determining that the filtering information of the target object is less than or equal to the second predetermined threshold, taking a next frame image adjacent to the current frame image in the video as a current frame image, and obtaining the extended search region as a search region in the current frame image.

16. The method according to any one of claims 1 to 15, further comprising: after determining one of the at least one candidate object whose filtering information satisfies the predetermined condition as the target object in the current frame image,

identifying a category of the target object in the current frame image.

17. An object tracking apparatus, comprising:

a detecting unit, configured to detect at least one candidate object in a current frame image in a video according to a target object in a reference frame image in the video;

an obtaining unit, configured to obtain an interference object in at least one previous frame image in the video;

an adjustment unit, configured to adjust filtering information of the at least one candidate object according to the obtained interference object;

a determining unit, configured to determine one of the at least one candidate object whose filtering information satisfies a predetermined condition as the target object in the current frame image.

18. An electronic device, comprising:

a memory storing executable instructions; and

a processor configured to execute the executable instructions to complete the method according to any one of claims 1 to 16.

19. A computer storage medium for storing computer-readable instructions, when the computer-readable instructions are executed, the method according to any one of claims 1 to 16 is implemented.

20. A computer program comprising computer readable codes, when the computer readable codes run on a device, a processor in the device is caused to execute instructions for implementing the method according to any one of claims 1 to 16.