CLAIMS

1. A method for identifying a pet via an image of a nose of the pet comprising, at a computing system:

receiving at least one image comprising the nose of the pet;

identifying the nose of the pet and nostrils of the nose in the at least one image;

comparing a degree of alignment of the nostrils of the nose with a first threshold value, wherein comparing the degree of alignment of the nostrils of the nose with the first threshold value comprises determining a horizontal alignment of the nostrils by determining a vertical offset between the nostrils;

in accordance with the degree of alignment of the nostrils meeting the first threshold value, determining a quality metric for at least a nose portion of the image; and

in accordance with the quality metric meeting a second threshold value, determining a representation of features of the nose of the pet in the at least one image.

2. The method of claim 1, wherein identifying the nose of the pet and the nostrils of the nose in the at least one image comprises using a machine learning algorithm.

3. The method of any one of the preceding claims, wherein the first threshold value is 30 degrees.

4. The method of any one of the preceding claims, further comprising, prior to determining the representation of features of the nose of the pet in the at least one image, comparing a size of one nostril to the other.

5. The method of any one of the preceding claims, wherein the quality metric is a blur metric.

6. The method of claim 5, wherein the blur metric is determined using singular value decomposition.

7. The method of any one of the preceding claims, wherein the representation of features of the nose of the pet is determined via a local binary patterns histogram algorithm.

8. The method of any one of the preceding claims, comprising comparing the representation of features of the nose of the pet with a plurality of stored representations of features of noses of pets corresponding to stored pet identities to identify the pet.

9. A system comprising one or more processors, memory, and one or more programs stored in the memory and including instructions for execution by the one or more processors for

receiving at least one image comprising a nose of a pet;

identifying the nose of the pet and nostrils of the nose in the at least one image;

comparing a degree of alignment of the nostrils of the nose with a first threshold value, wherein comparing the degree of alignment of the nostrils of the nose with the first threshold value comprises determining a horizontal alignment of the nostrils by determining a vertical offset between the nostrils;

in accordance with the degree of alignment of the nostrils meeting the first threshold value, determining a quality metric for at least a nose portion of the at least one image; and

in accordance with the quality metric meeting a second threshold value, determining a representation of features of the nose of the pet in the at least one image.

10. The system of claim 9, wherein identifying the nose of the pet and the nostrils of the nose in the at least one image comprises using a machine learning algorithm.

11. The system of any one of claims 9-10, wherein the first threshold value is 30 degrees.

12. The system of any one of claims 9-11, wherein the one or more programs include further instructions for, prior to determining the representation of features of the nose of the pet in the at least one image, comparing a size of one nostril to the other.

13. The system of any one of claims 9-12, wherein the quality metric is a blur metric.

14. The system of claim 13, wherein the blur metric is determined using singular value decomposition.

15. The system of any one of claims 9-14, wherein the representation of features of the nose of the pet is determined via a local binary patterns histogram algorithm.

16. The system of any one of claims 9-15, wherein the one or more programs include further instructions for comparing the representation of features of the nose of the pet with a plurality of stored representations of features of noses of pets corresponding to stored pet identities to identify the pet.

17. A non-transitory computer readable storage medium storing one or more programs for execution by one or more processors for performing the method of any one of claims 1-8.