

PetFace: A Large-Scale Dataset and Benchmark for Animal Identification Supplemental Material

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A Fine-grained Annotations

We list breed annotations statistics for eight animal classes (Cat, Chimp, Dog, Guinea pig, Hamster, Parakeet, Pig, and Rabbit) in Fig 8. Similarly, color and pattern annotations statistics for eleven animal classes (Cat, Chinchilla, Degus, Ferret, Guinea pig, Hamster, Hedgehog, Parakeet, Java sparrow, Pig, and Rabbit) are presented in Fig 9. Our dataset provides color and pattern information through two-tier hierarchical annotations, especially for animal families whose colors commonly distinguish individuals.

B Implementation Details

Pre-processing. We input the images with 224×224 pixels for our models. We use horizontal flip to augment the training images. For the other models, we strictly follow the defined pre-processings.

Triplet loss. We use a 3rd-party implementation [5]. We set the margin parameter to 0.5.

Center loss. We use a 3rd-party implementation [1].

ArcFace loss. We use a 3rd-party implementation [2]. We set the margin and scale parameters to 0.5 and $\sqrt{2} \log(C - 1)$ where C denotes the number of individuals, respectively.

ImageNet. We use the torchvision version [4].

CLIP. We use the open clip version [3].

MegaDescriptor. We use the official implementation [6].

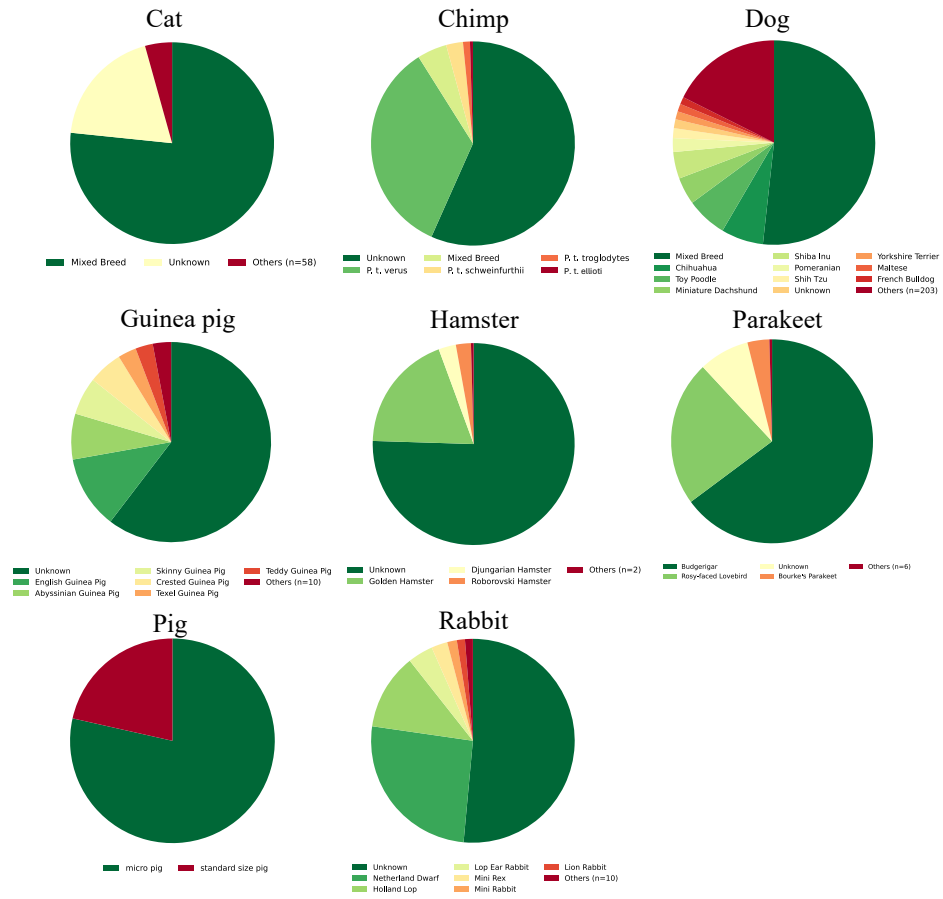


Fig. 8: Breed annotations.

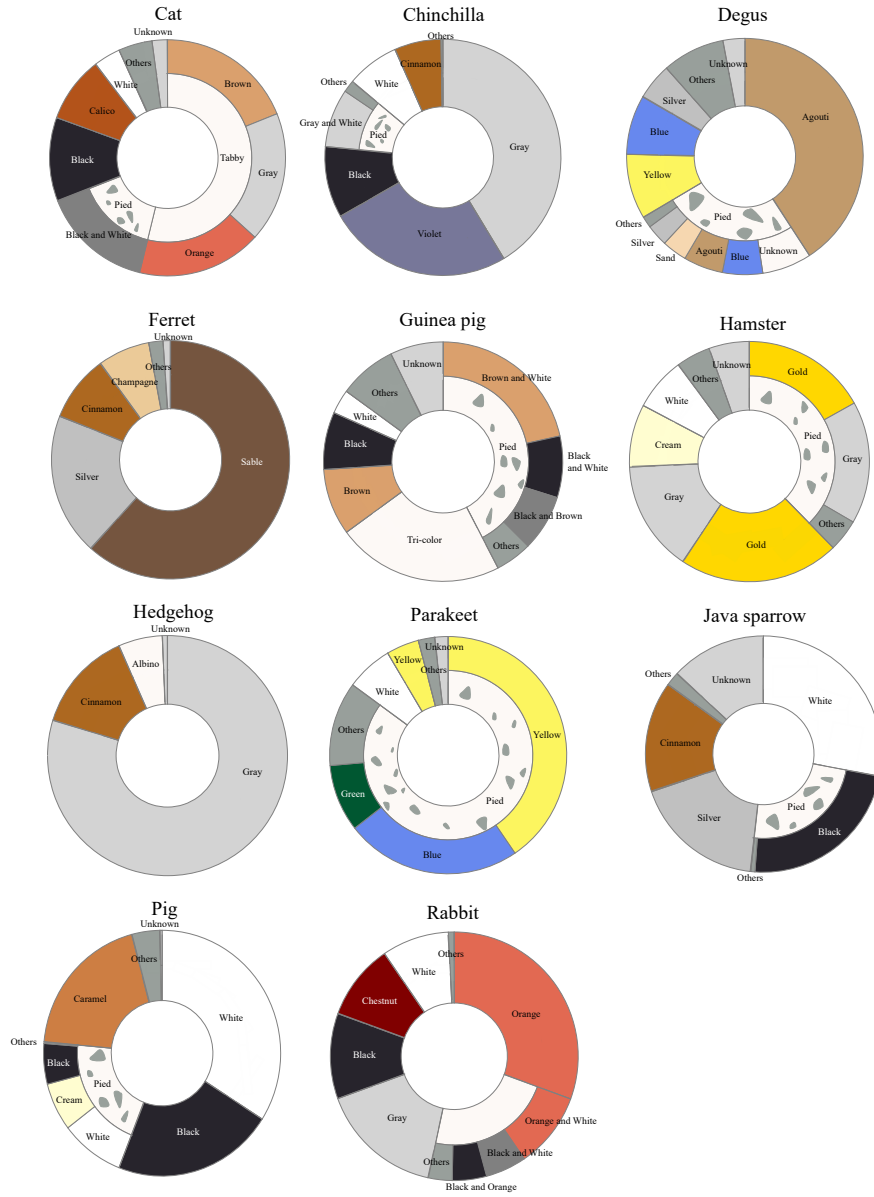


Fig. 9: Color and Pattern annotations.

References

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