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CSCI 6366 Neural Networks & Deep Learning

27 August 2024

Literature Review for Right Whale Recognition Kaggle Competition Task

A convolutional neural network achieves state-of-the-art performance on many image datasets such as the MNIST digit classification [1] and the ImageNet large scale classification challenge [2], [3]. This kaggle competition challenge [4] can be categorized as an image classification task and is similar to the face recognition problem; except that this challenge expects to develop a face recognition model for whales. A lot of the solutions for this competition have a similar strategy to the solution suggested in [5], which was inspired by the work of [6]. The team positioned second [7] employed a multi-stage approach, initially regressing a bounding box to pinpoint the whale's head, followed by an alignment process. Their classification models drew upon the Visual Geometry Group network (VGG) [8] and ResNet [9]. Conversely, the team achieving the highest score in this dataset [10] utilized an ensemble of classification models trained on passport-like images of whale heads. Other work includes [11], [12], [13].

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