

# Review of "ImageNet: A Large-Scale Hierarchical Image Database"

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This paper introduces ImageNet, a large-scale, diverse, hierarchical image database as a need for benchmarking robust models, and aiding several critical computer vision tasks, such as Object Recognition, Image Classification and object localization. It uses wordnet as a backbone, and provides dense tree-structured subcategories. Imagenet also boasts to contain unprecedented number of examples per category, categories, non-overlapping categories.

To construct the database, the authors first collect vast unclean data from across different search engines, using multiple languages, and appending parent words given the class. They clean the dataset using Amazon Mechanical turk by asking multiple workers to verify if a given image contains the given object of interest regardless of the artifacts like occlusion, multiple objects ,to name a few. Each image is considered a positive sample if it satisfies a confidence score that is determined dynamically, representing semantic difficulty for that category.