

DEEP LEARNING OF ROBUST REPRESENTATIONS FOR MULTI-INSTANCE AND MULTI-LABEL IMAGE CLASSIFICATION

Silva, Jesús; Varela Izquierdo, Noel; Mendoza-Palechor, Fabio E;
Lezama, Omar Bonerge Pineda

Abstract

In multi-instance problems (MIL), an arbitrary number of instances is associated with a class label. Therefore, the labeling of training data becomes simpler (since it is done together, instead of individually) with the disadvantage that a weakly supervised database is produced [9]. In the PCRY, each restaurant is represented by a set of images that share the attribute label(s) of that establishment. This paper explores the use of previously learned attribute extractors, trained in 3 different databases that are similar and complementary to the PCRY database

Keywords

Deep learning, Image classification, Multi-instance, Multi-label