

1128-68-236

Ethan Moon Mahintorabi* (emahintorabi@zagmail.gonzaga.edu) and **Justin Dickinson Marks** (marksj@gonzaga.edu). *Piracy Detection Algorithms for Obfuscated Copyrighted Videos*. Preliminary report.

Finding the nearest neighbor in a set of images and videos is of great interest to those seeking to assign a class label to a particular novel image or video. Specifically, researchers are interested in detecting piracy, namely, they would like to flag videos that are modified versions of copyrighted videos found in a database. Current methods for detecting video piracy use a combination of an image hashing algorithm like p-hash and a Hamming distance metric tree. We seek to use multiple-instance generated subspaces, i.e. Grassmann manifold points, to improve the accuracy of a piracy detection algorithm, and we compare the performance to state-of-the-art single-instance methods. Our presentation will clearly motivate and illustrate the suite of piracy detection algorithms. (Received February 27, 2017)