URBAN STREET CLEANLINESS ASSESSMENT USING MOBILE EDGE COMPUTING AND DEEP LEARNING

A PROJECT REPORT

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ABSTRACT

Object detection is a central task in computer vision, with applications ranging across the process of smart city construction, city managers always spend a lot of energy and money cleaning street garbage due to the random appearances of street garbage, As deep network solutions become deeper and more complex, they are often limited by the amount of training data available. With this in mind, to spur advances in analyzing and understanding images, Open CV or Google AI has publicly released the Open Images dataset.

Open Images follows the tradition of PASCAL VOC, Image Net and COCO, now at an unprecedented scale. In this project we to implement the Consequently, visual street cleanliness assessment is particularly important. However, existing assessment approaches have some clear disadvantages, such as the collection of street garbage information is not automated, and street cleanliness information is not real-time best performing algorithm for automatically detecting objects.

Finally, the results are incorporated into the street cleanliness calculation framework to ultimately visualize street cleanliness levels, which provides convenience for city managers to arrange clean-up personnel effectively.