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make the confidence of each detection influenced by the average confidence all the existing tracklet that it is most likely to belong to

likelihood of belonging is measured by the usual method of 128 dimensional embedding vector and cosine similarity

dependency is added to both early-stage anchor boxes and late stage RPN boxes in the standard two stage detector with a third branch added to the bounding box regression and classification branches to output the embedding vector

Supposed to be applicable to single-stage detectors as well

Only the confidence values of the boxes seem to be getting modified by the conditioning

Even though inference time Association is supposed to involve all the boxes in an existing tracklet, training is done using only pairs of randomly selected boxes from trajectories which might limit its effectiveness but is necessitated by the variable length of trajectories

Implementation details seem to be riddled with heuristics

Inference also involves all the usual heuristics including bipartite graph matching with Hungarian algorithm and even some optical flow based box propagation

Code is not released with the usual disingenuous promise of releasing it later