Spatiotemporal Consensus with Scene Prior for Unsupervised Domain Adaptive Person Search

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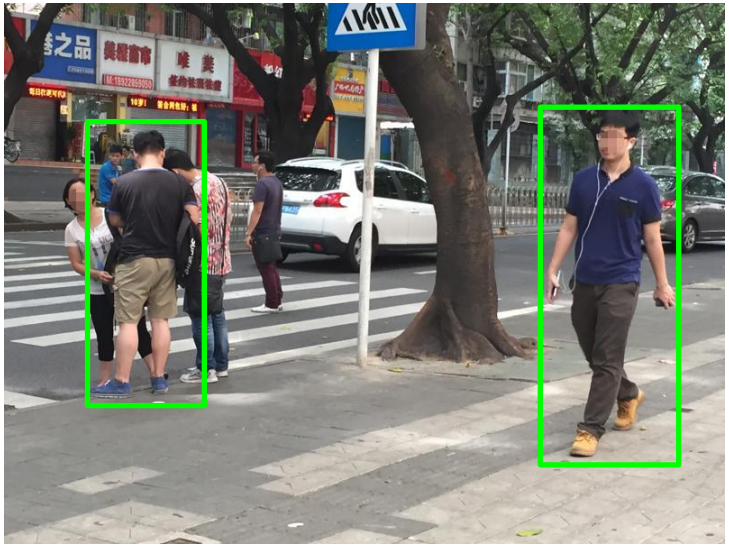
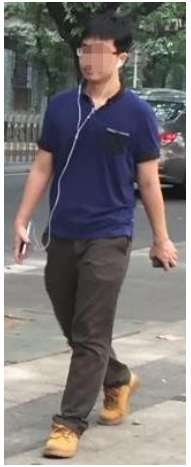


Jack

Tom



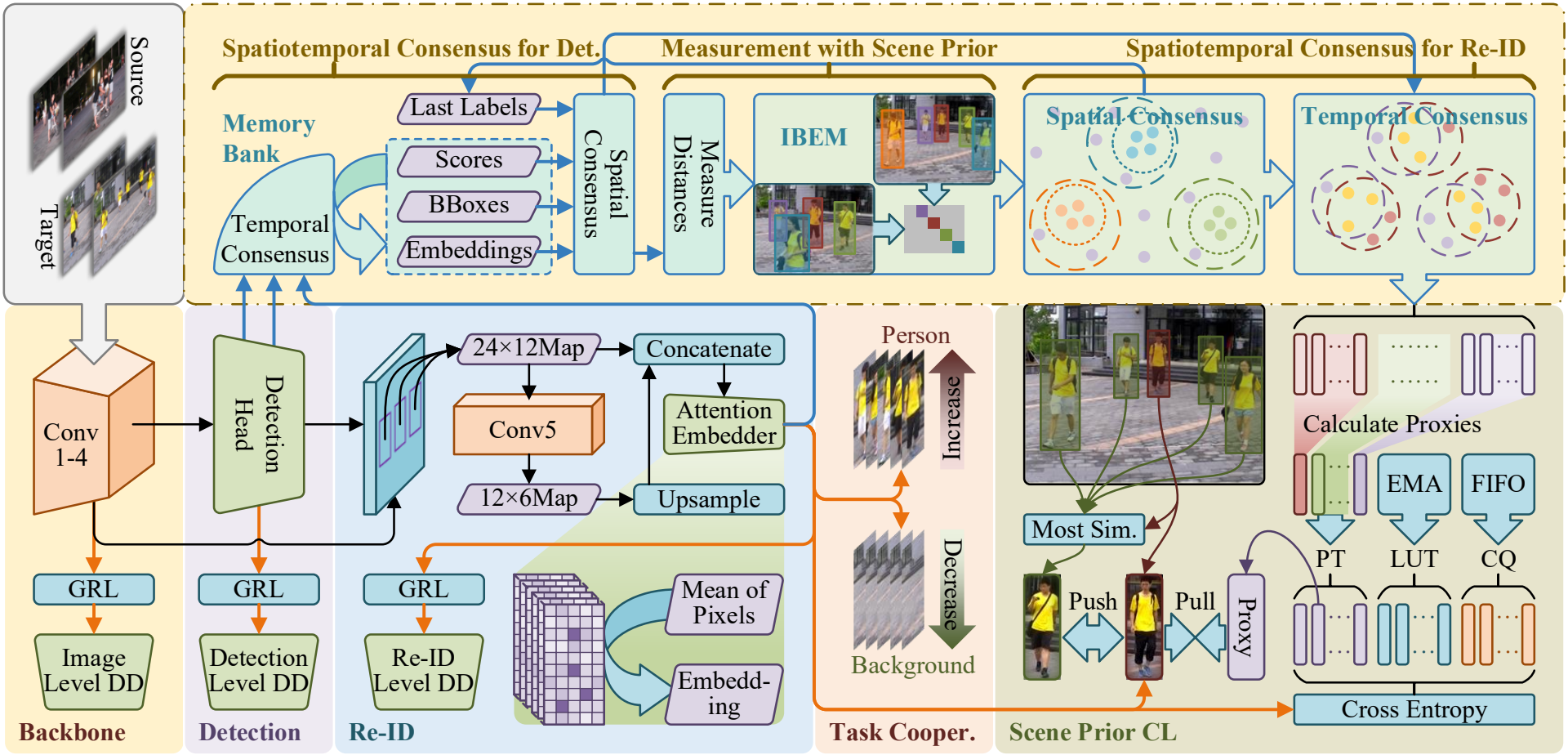
Person search aims to localize and identify the query person from a gallery of the whole scene images, which can be taken as a joint task of person detection and re-identification (reid) in computer vision. Unsupervised domain adaptation in person search aims to achieve model generalization from labeled source data to unlabeled target deployment scenarios.

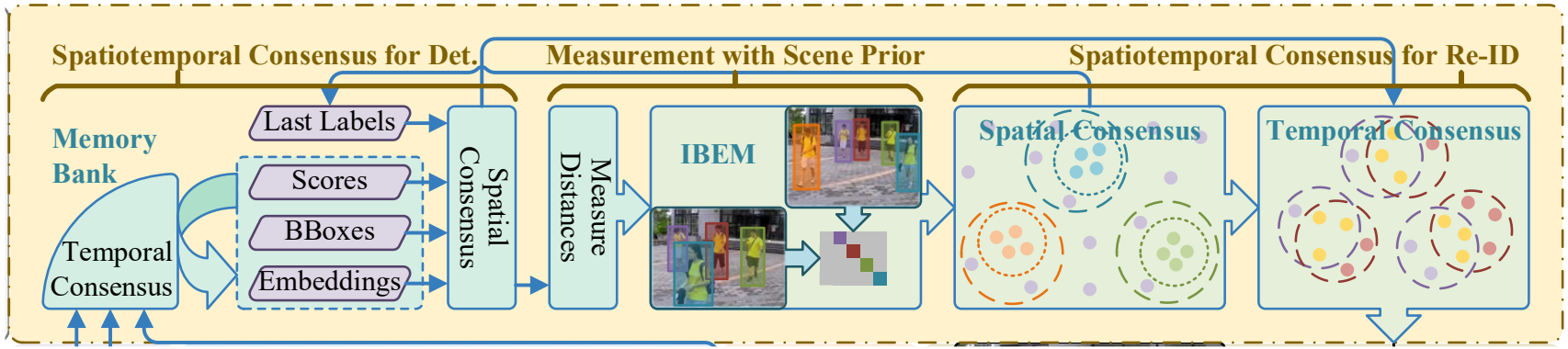
a A correct pseudo-label has an accurate BBox and a correct person identity.

b An inaccurate pseudo-BBox manifests in the form of either encapsulating an erroneous region or exhibiting the overlap of multiple boxes.

c An incorrect identity label comes from situations where an identity is assigned to different individuals or where different instances of a person are assigned different identities.

d Assigning the same identity label to intra-scene persons is a clear error.


Source
Target
Spatiotemporal Consensus for Det.
Measurement with Scene Prior
Spatiotemporal Consensus for Re-ID
Memory Bank
Temporal Consensus
Last Labels
Scores
BBoxes
Embeddings
Spatial Consensus
Measure Distances
IBEM
Spatial Consensus
Temporal Consensus
Conv 1-4
Detection Head
24×12Map
Conv5
12×6Map
Concatenate
Attention Embedder
Upsample
GRL
GRL
GRL
Image Level DD
Detection Level DD
Re-ID Level DD
Mean of Pixels
Embedd-ing
Backbone
Detection
Re-ID
Person
Increase
Decrease
Background
Task Cooper.
Most Sim.
Push
Pull
Proxy
Calculate Proxies
EMA
FIFO
PT
LUT
CQ
Cross Entropy
Scene Prior CL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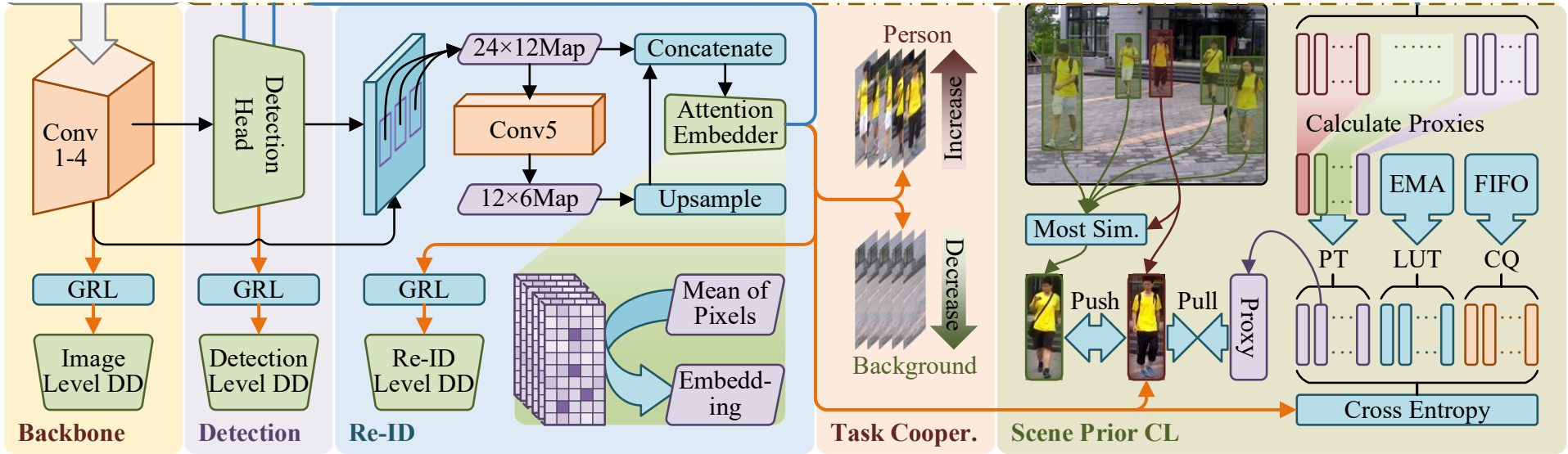
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END

THANK YOU