An Approach for Multiple Object Tracking with Attention Mechanism

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Outline

• Introduction
• Dataset
• Methods
• Future works
Introduction

• MOT

• LSTM Autoencoder
Introduction
Dataset

- DETRAC
- MOT17
Methods

• Attention Mechanism

• soft attention

\[ s_i = \tanh(W_c C + W_x X_i) = \tanh(W_c h_{t-1} + W_x x_i) \]

\[ \alpha_i = \text{softmax}(s_1, s_2, \ldots, s_i, \ldots) \]

\[ Z = \sum_i \alpha_i x_i \]
Areas with higher attention are brighter in the picture.
Attention part
Methods

- raw data+detections&labels(boundary)->encoder->composite

- raw data, detections&labels->encoder->add representation->decoder/predictor

- raw data, dections&labels->encoder->fc layers->decoder/predictor
Future works

• fix my computer…

• train our models (on Moving MNIST?)

• add detection in our model