Moving Object Detection with Deep Convolutional Networks and LSTM

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This Week...

- Fixed all bugs, and network is learning

- Keras documentation was unclear

- Currently running two experiments, one with input of 5 frames, the other using background subtraction
Five Frames
Five Frames

- Train using a single heatmap. Choose the third image in the input sequence
Background Subtraction

- Network input is a single sub-image and its corresponding background-subtracted image
Background Subtraction

- Train using a single heatmap. Annotations correspond to moving vehicles.
Five Frames Ground Truth
Five Frames Results
Background Subtraction
Ground Truth
Background Subtraction Results
Conclusions

- Difference between Caffe and Theano learning

- Training time on cluster is at least 18 times slower than on a local machine