Moving Object Detection with Deep Convolutional Networks and LSTM

Gregoire Robinson
Advisors: Dong Zhang and Dr. Mubarak Shah
Last Week's Results
Last Week’s Results
This Week...

- Modified neural network: Added an output layer
- Used PV Labs dataset: Images are already registered, better annotations, slightly larger vehicles
- Used frame-differencing: Instead of training network 1 image at a time, changed input to 5 consecutive frames
- Reduced training time significantly
Experiment 1: Batch Size 1
Experiment 2: Batch Size 16
Conclusions

• Started training Wednesday, there was an error in the data organization

• Good news is that training time is now >100 times lower so should be able to run more experiments
Future Work

- Train for more iterations
- Use background subtraction