

38. Car context heat map for fast exploration

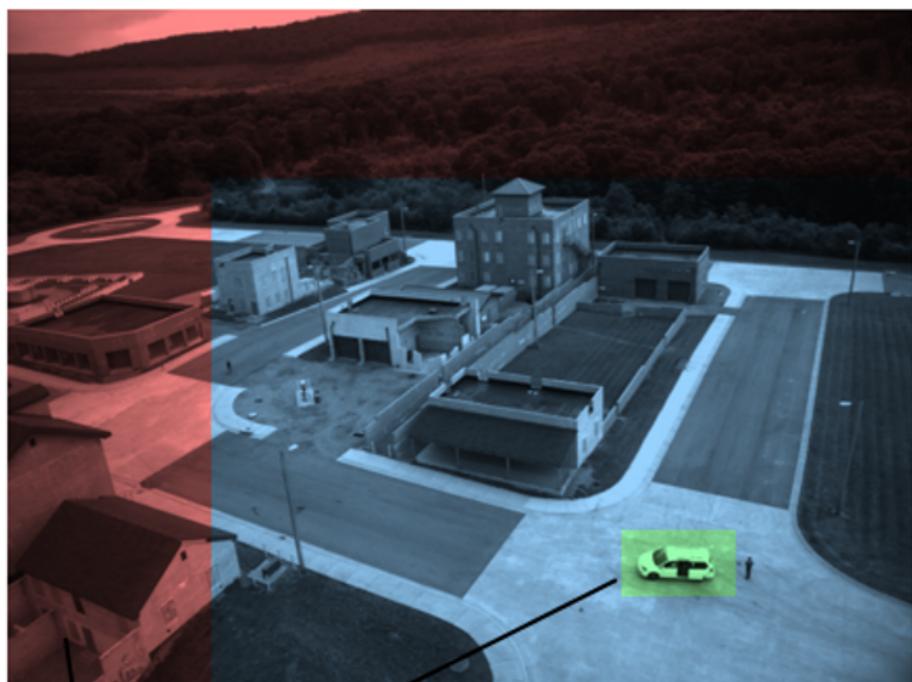
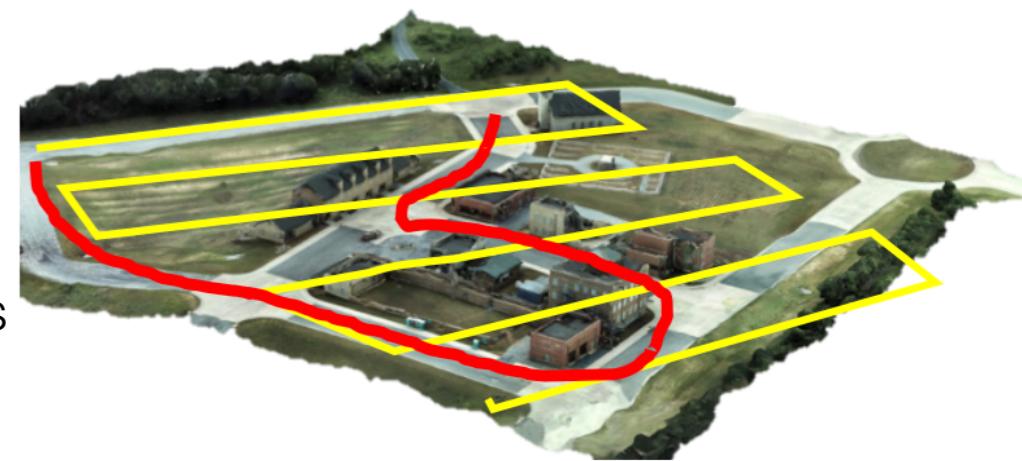
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Problem : Efficiently estimate candidate locations for cars (animals, search & rescue missions)

Prior Work : Car classification and detection

Motivation : Focused exploration leads to more relevant information

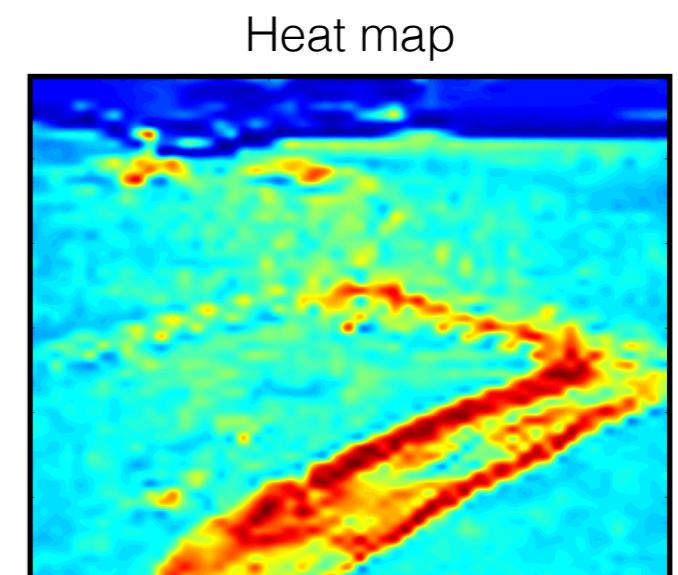
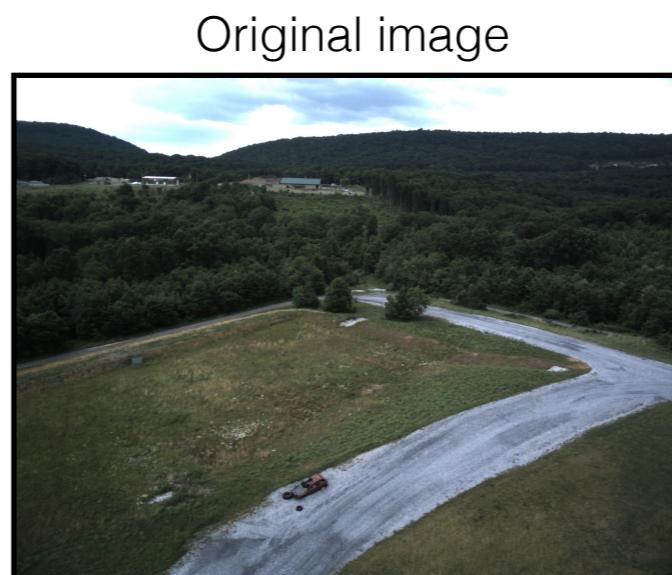
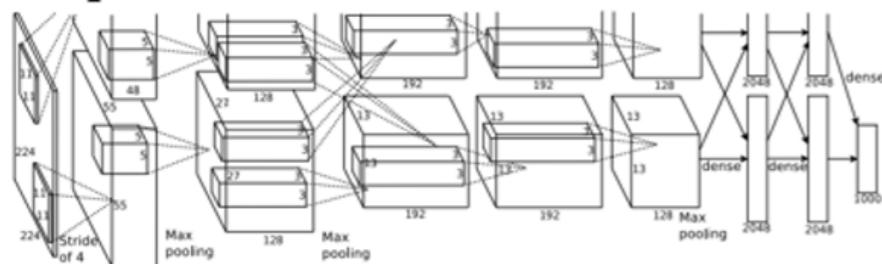
Dataset : ~300 manually labeled images of cars taken from drones



Approach :

- 1) Select regions near to and far from the car
- 2) Extract features from candidate locations using AlexNet
- 3) Train NN Classifier for 'near to car' and 'far from car' locations
- 4) Interpret softmax outputs as quantifying closeness to car.

Results : Classification Accuracy = 68.7 %



Region Far from Car

Region Near Car