#eCOMONENTS

the PROBLEM

theGOAL

Investigating and sheddling light upon the challenges

and solutions of target search using drones in a realistic environment.

35%

theSTATS

CNNs confidently identify an object*

SURVEILLANCE & MAPPING

TARGET LOCALIZATION WITH DRONES USING MOBILE CONVOLUTIONAL NEURAL NETWORKS



+ optimizing the flight path of a drone with a single static target



+ a testbed combining mobile CNNs & policy search with point based methods in a POMDP framework



+ a realistic application of identifying a static basketball

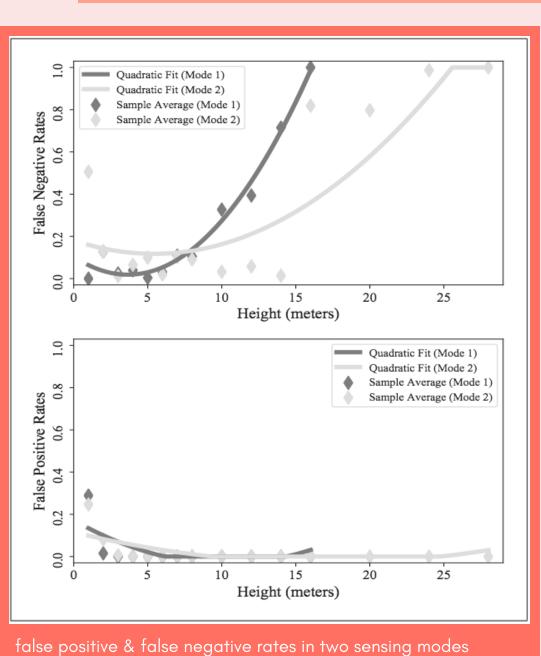
the risk of overmodeling



environmental factors

accounting for structured noise





theFUTURE



+ characterizing the impact of persistent factors more precisely



+ automatically detecting structures to avoid overmodeling



+ designing better computer vision algorithms that are more robust

*source: http://www.cs.cmu.edu/~pscerri/papers/aiaa09pkv.pdf

SURVEILLANCE & MAPPING BY DETECDRONE

