Face and Activity Recognition at CSU



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Video Activity Recognition Demonstration with iRobot (Fort Indiantown Gap, June 2012) 8 Actions : bounce, carry, dig, pick up, put down, run, stop, walk Multiple cameras (as shown) Setup & trained in 1 day Real time : 30Hz on 768x432p video Unique Underlying Technology MOSSE Tracking **Real-Time Action** Latent Configuration Matching Clustering Video snippets as 3D tensors Video comparison via geodesic distances on 3 Grassmann manifolds Fast nearest neighbor lookup in a generalized metric space Correlation filter based • Faster than real time MOSSE filters an also be • Clusters video snippets used for object detection • O(n log(n))

Next: Combining biometrics and activity recognition In other words, <u>who</u> did <u>what?</u>

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