Department of Computer Science
University of Bristol

# COMS30030 - Image Processing and Computer Vision

Video Lecture 02

## Computer Vision Demos

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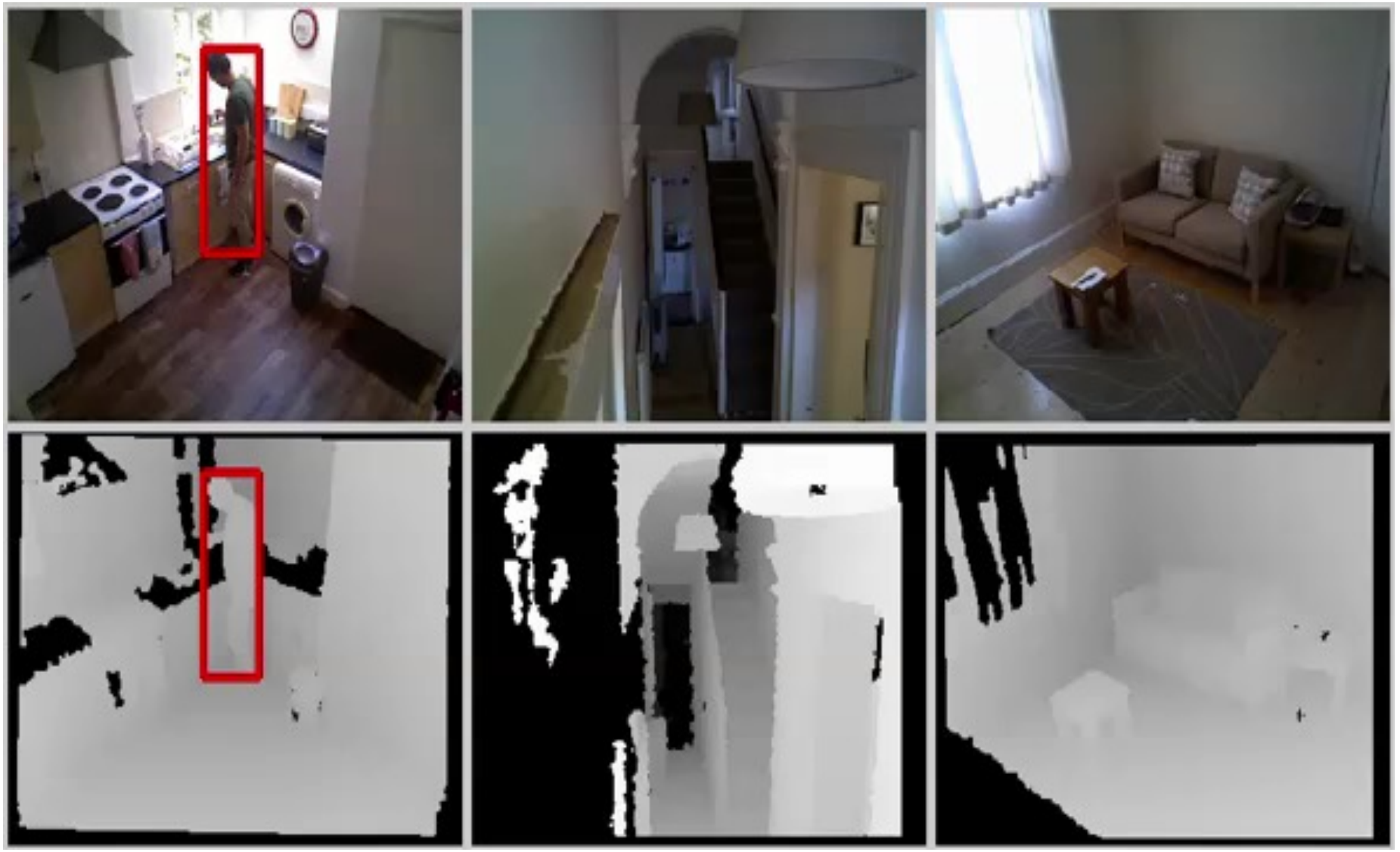
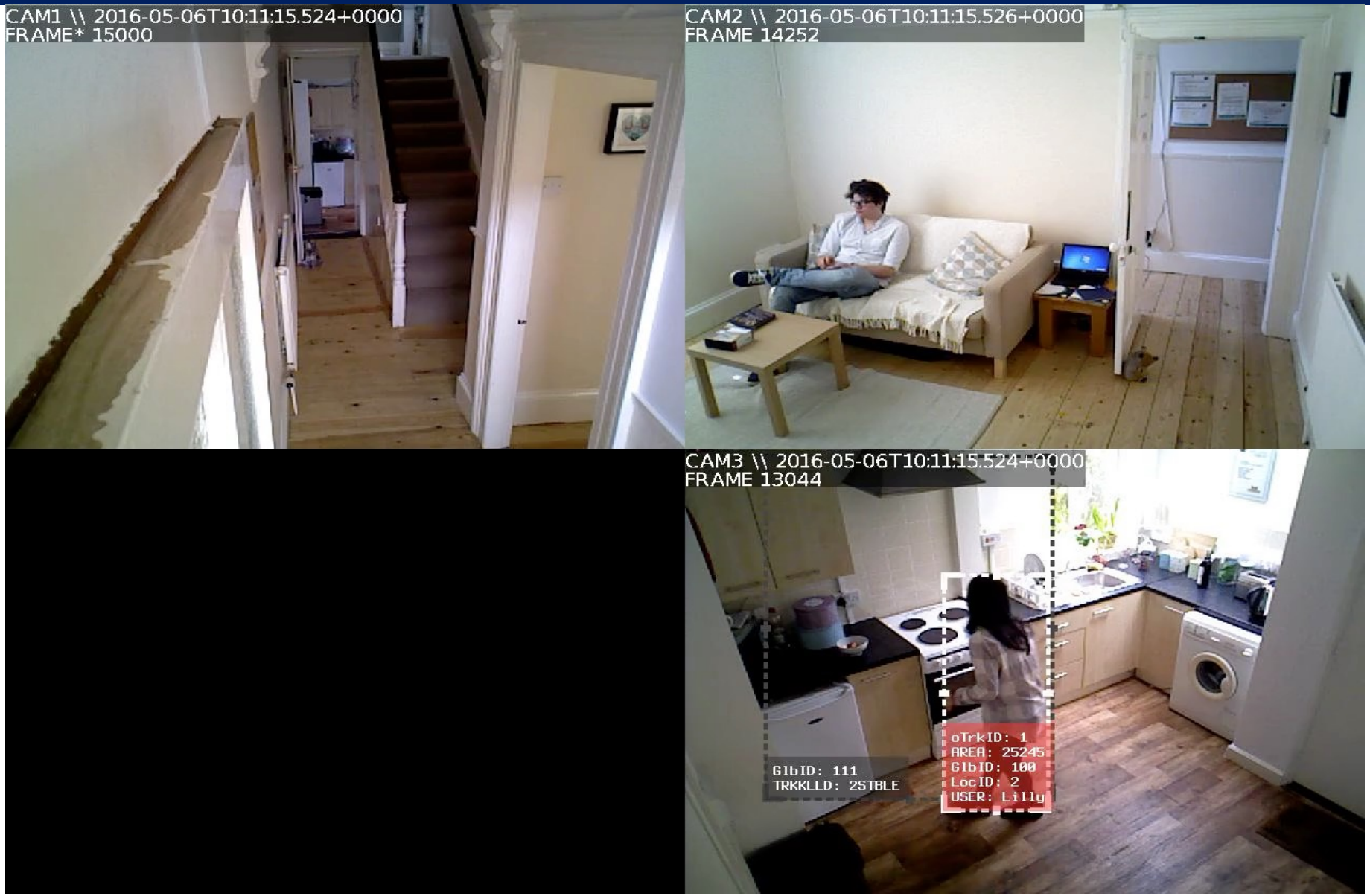
# Example: SPHERE RGB-D Multi-Camera Person Detection

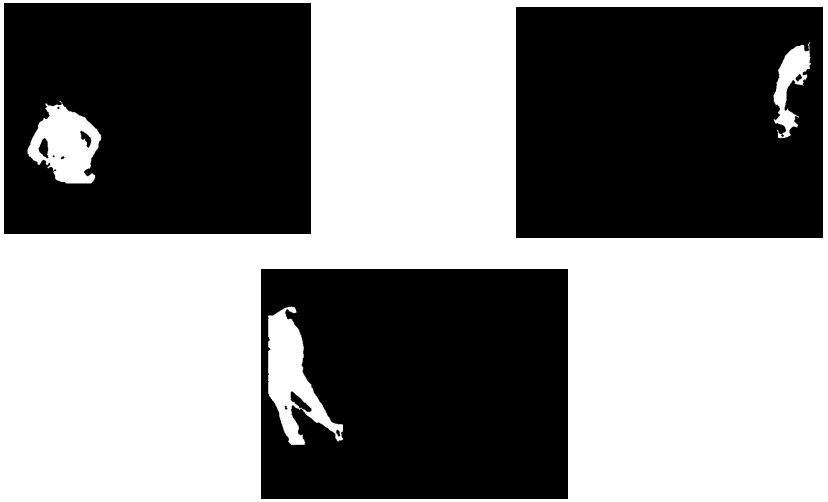


# Example: SPHERE Tracker

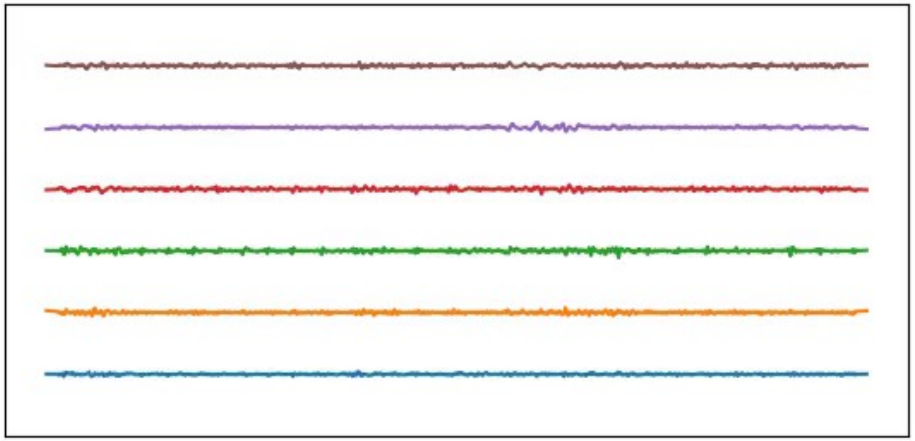


# Calorie Estimation from Silhouette Videos

Example Silhouettes



Accelerometers



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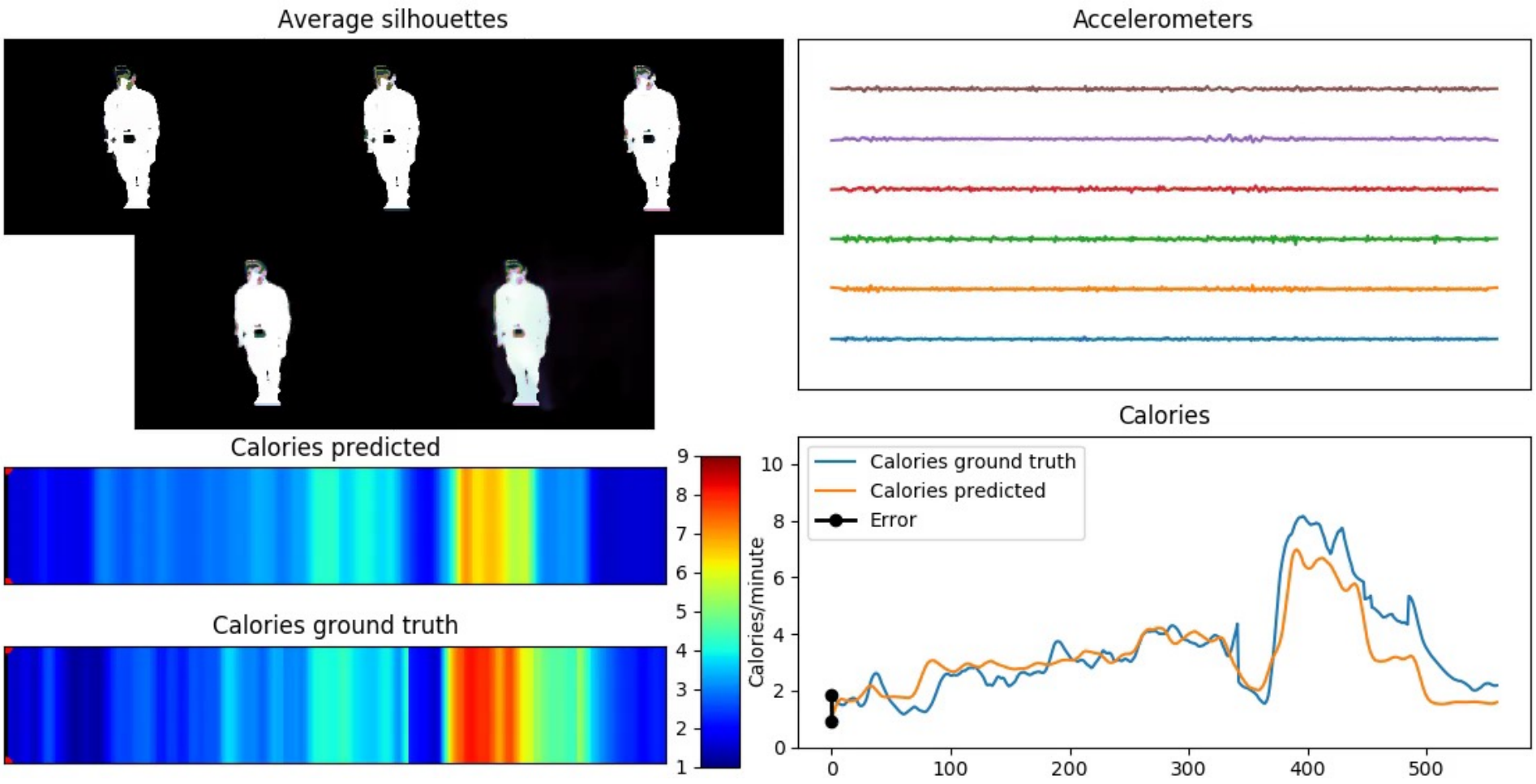

# Example: Dual Kinect Pulmonary Function Testing

Double-sided chessboard setup

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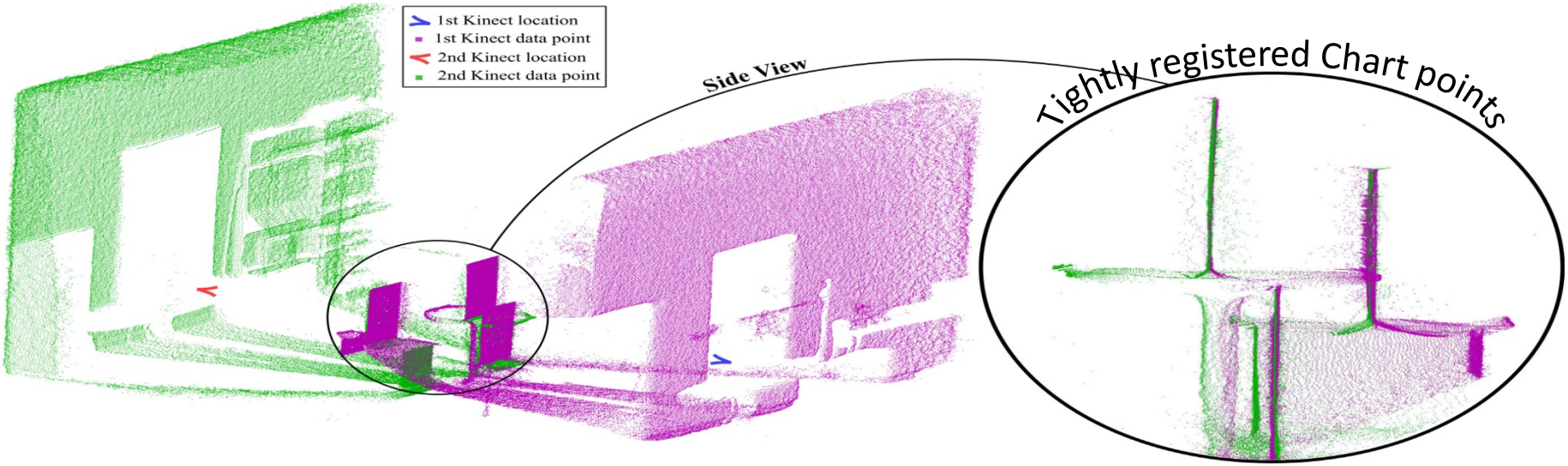
Double-sided chessboard setup



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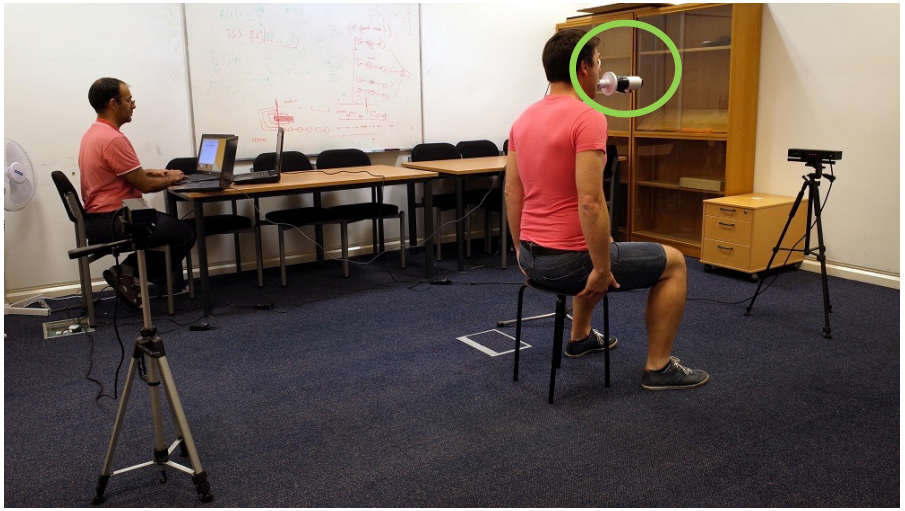
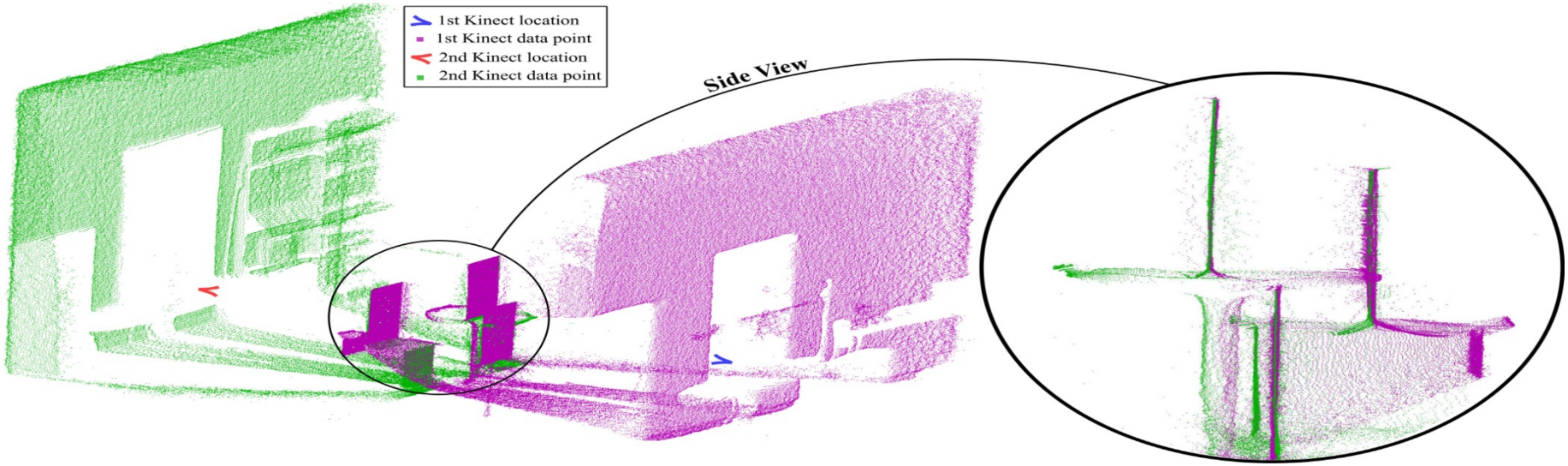
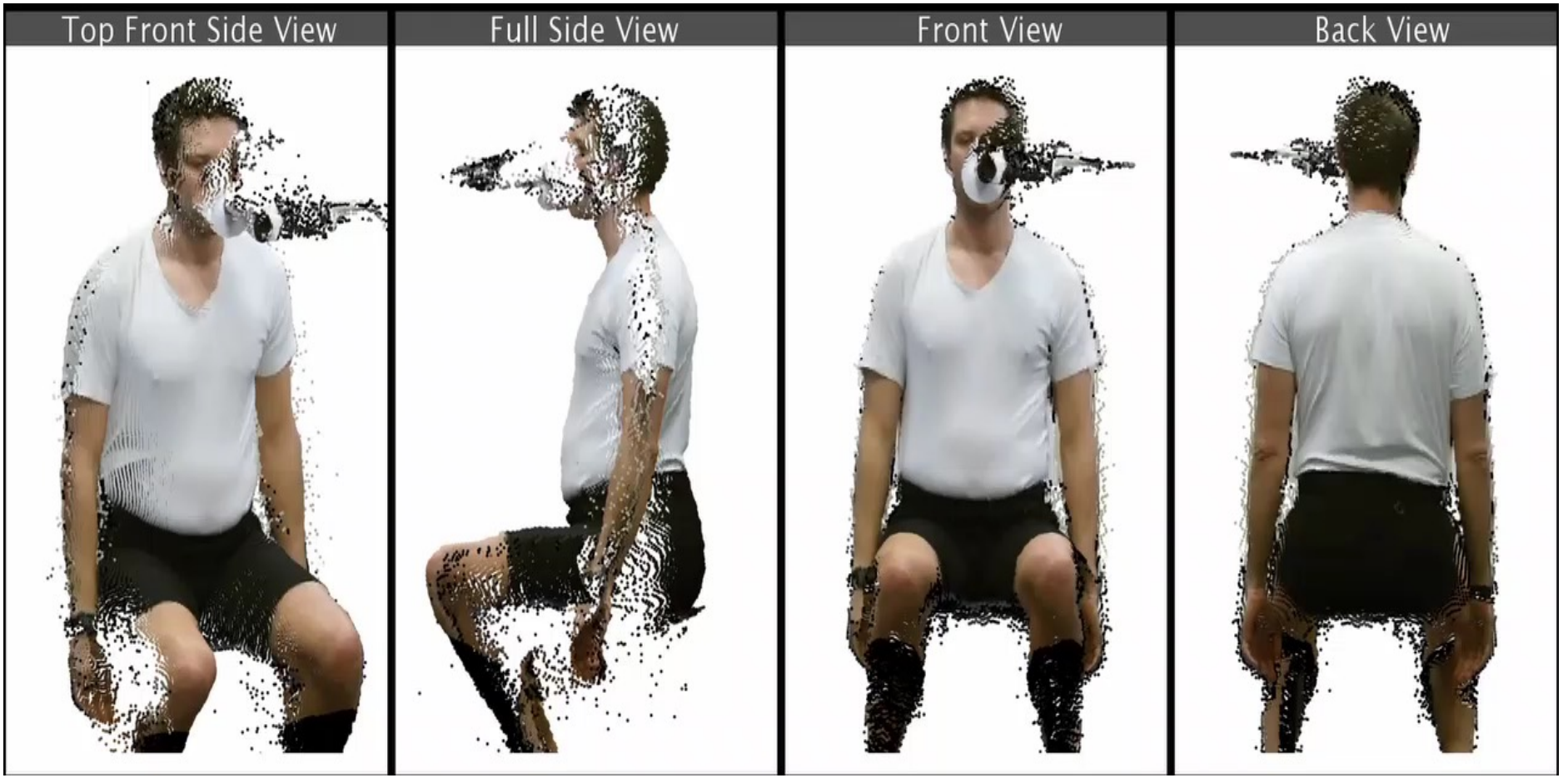
Double-sided chessboard setup



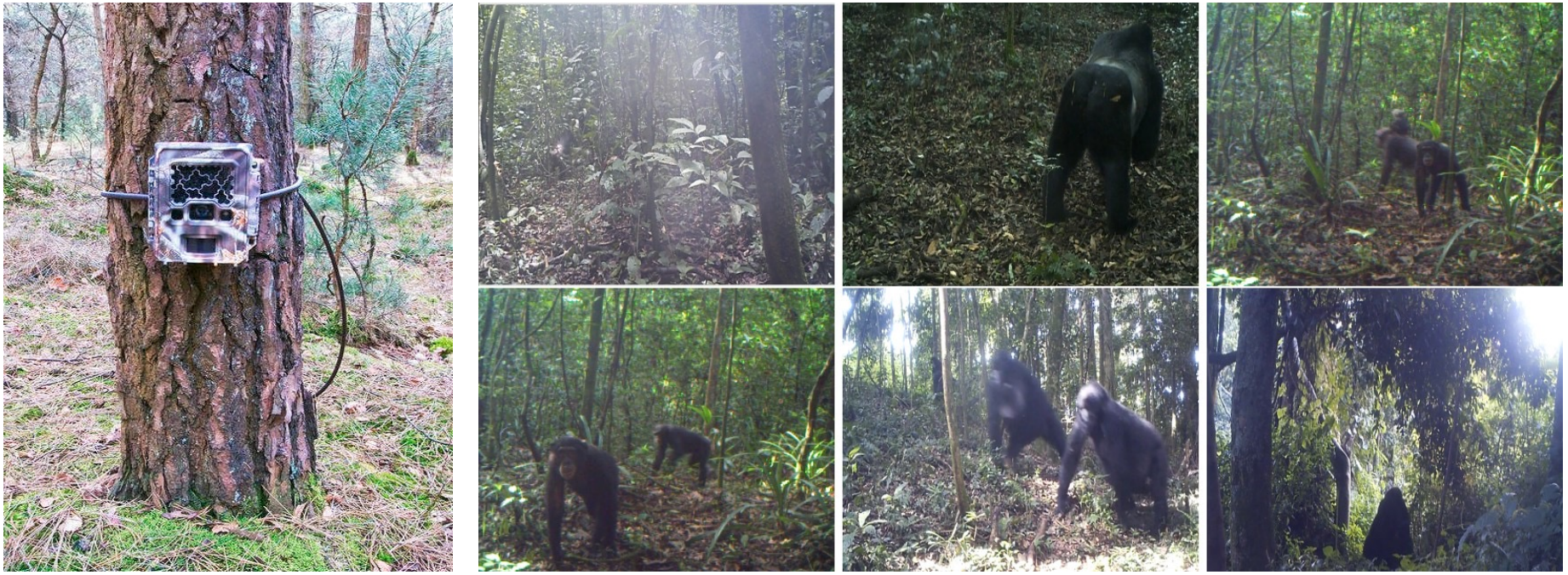
Recording a breathing test



# Example: Dual Kinect 3D Reconstruction



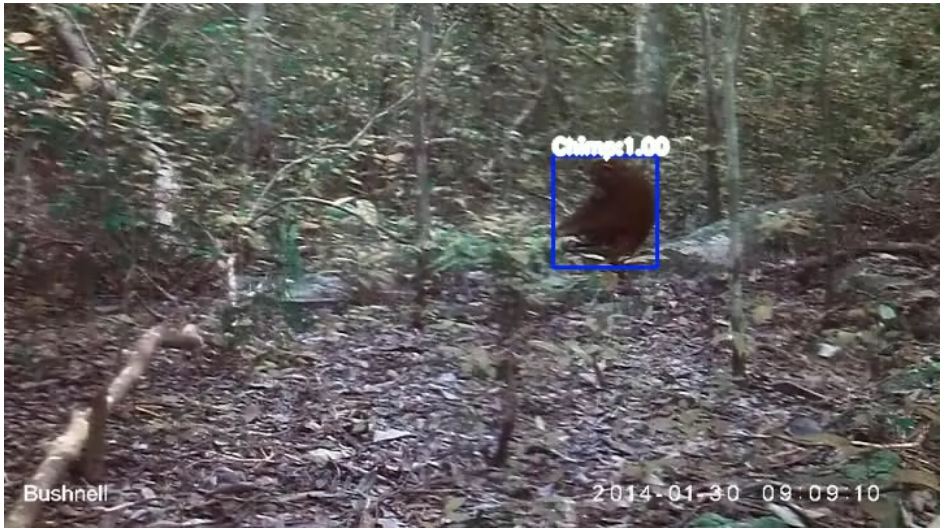
# Example: Animal Detection and Tracking



## Chimpanzee and Great Ape Camera-Trap Dataset

Captured in the African jungle, provided by Max Planck Institute for Evolutionary Anthropology. There are 300,000 video clips – 15 seconds each – fully annotated with classes.

# Example: Base Tracker



# Example: Attention-based Occlusion-robust Tracker

Our Attention-based CNN

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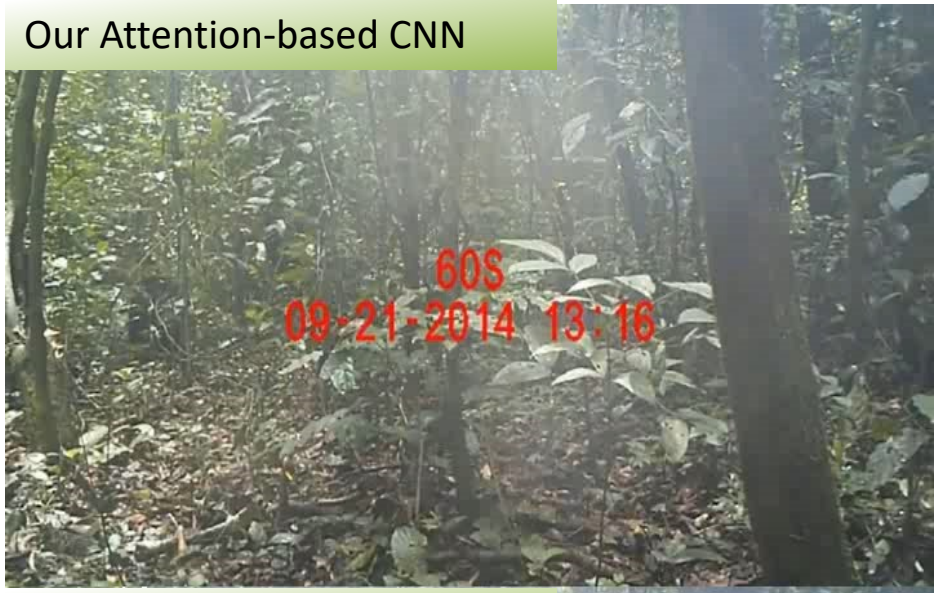
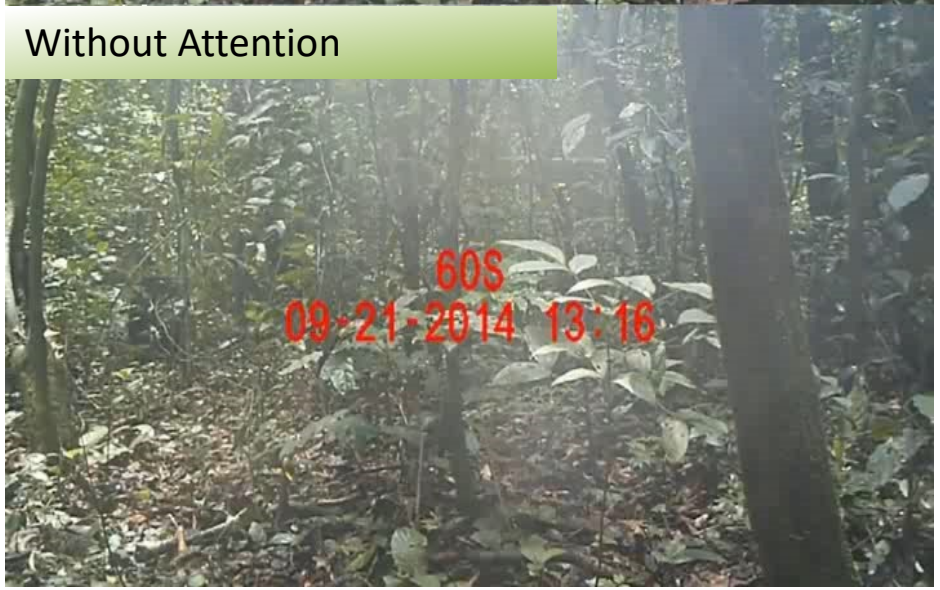



Without Attention

Without Attention



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## Thanks for watching the Computer Vision Demos

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