

# Using the Forest to See the Trees: Context-based Object Recognition

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## A computer vision goal

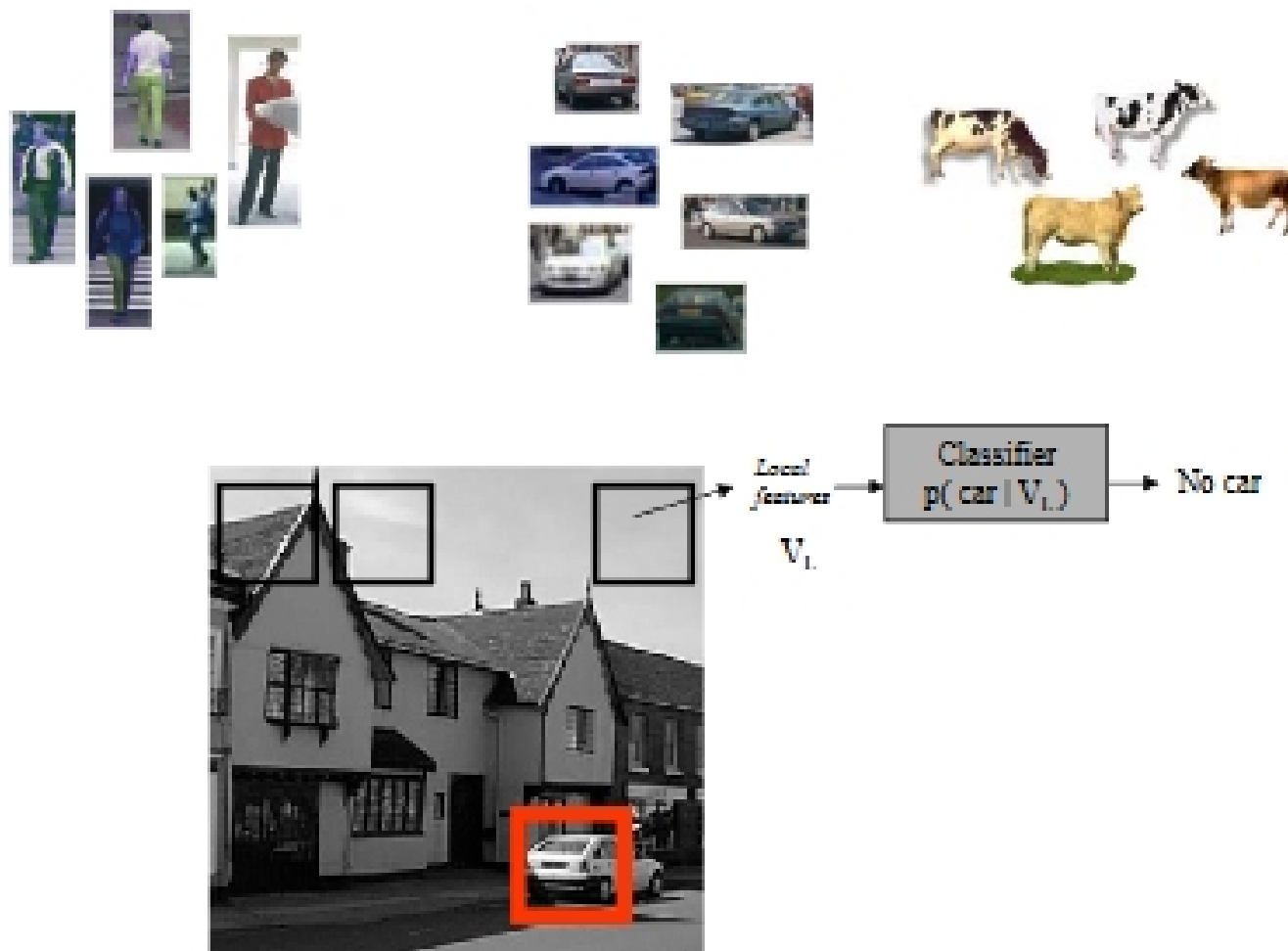
- Recognize many different objects under many viewing conditions in unconstrained settings.
- There has been progress on restricted cases:
  - one object and one pose (frontal view faces)
  - Isolated objects on uniform backgrounds.
- But the general problem is difficult and unsolved.

# How we hope to make progress on this hard problem

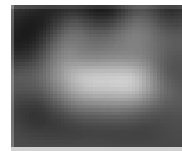
- Various technical improvements
- Exploit scene context:
  - “if this is a forest, these must be trees”.

## Local (bottom-up) approach to object detection

Classify image patches/features at each location and scale



Problem 1:  
Local features can be ambiguous



Solution 1: Context can  
disambiguate local features

