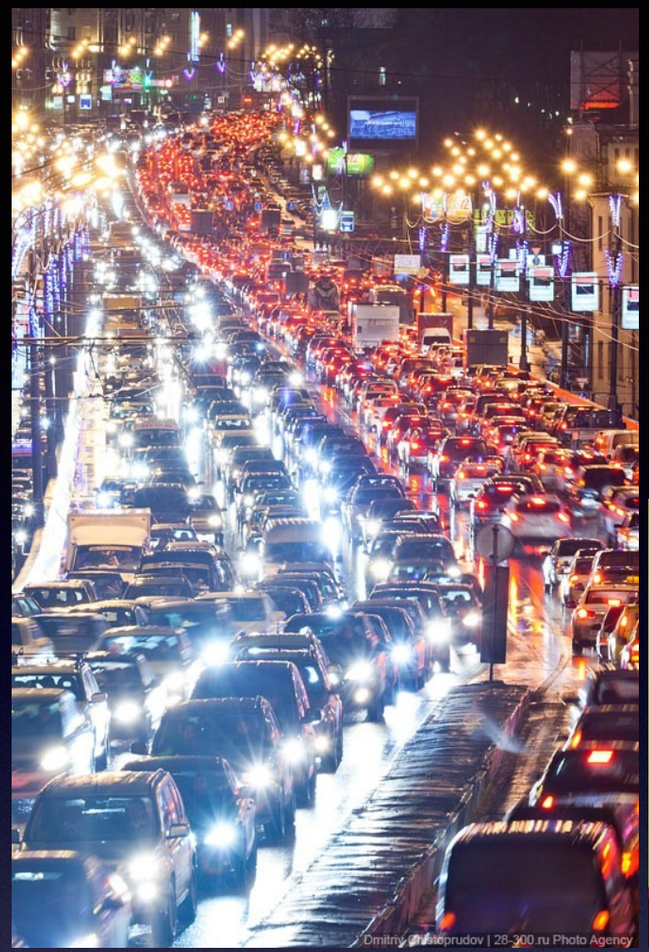
Statistical Models for Visual Detection and Recognition

COMPSCI 527

Today:

- Course logistics
- Introduction to computer vision and statistical modeling

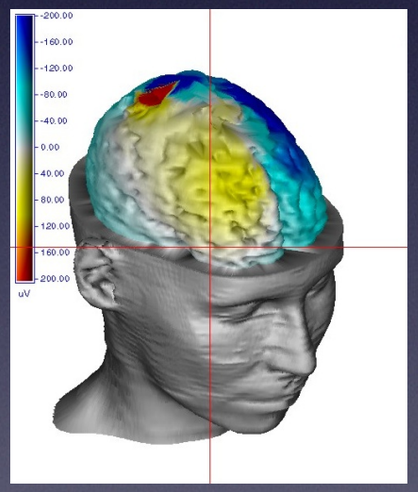

Dmitriy Chistoprudov | 28-300.ru Photo Agency

iPhoto
LIBRARY
Events
Photos
Faces
Places
RECENT
Summer Vacation
Last Import
Last 12 Months
Flagged
Trash
ALBUMS
Unnamed
Recovered Photos
WEB
PROJECTS
Plants Book
SLIDESHOWS
Plants Slideshow
Short Slideshow
Long Slideshow
All Faces
Allyson 3 photos
Photos
Faces
Allyson may be in 1 additional photo
Confirm Additional Faces...
Full Screen
Search
Zoom
Slideshow
Info
Edit
Create
Add To
Share

ASIMO
HONDA

Google
self-driving car

eSSL
Security at Fingerprints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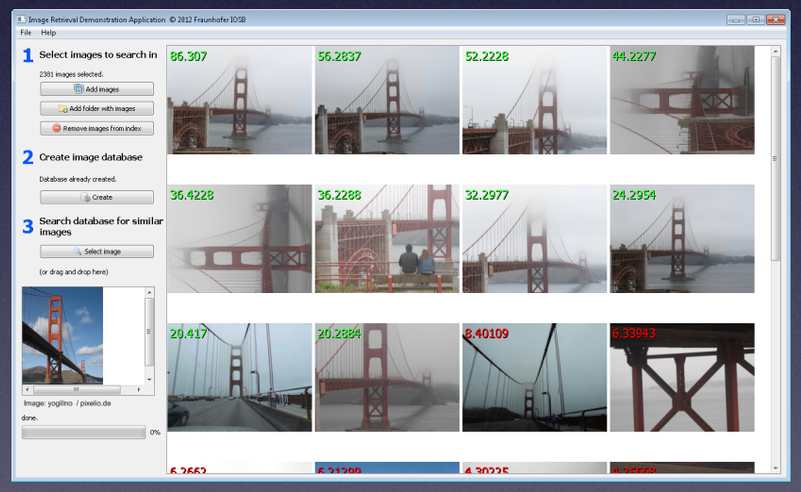
Image Retrieval Demonstration Application © 2012 Fraunhofer IOSB
File Help
1 Select images to search in
2381 images selected.
Add images
Add folder with images
Remove images from index
2 Create image database
Database already created.
Create
3 Search database for similar images
Select image
(or drag and drop here)
Image: yogilino / pixelio.de
done.
0%
86.307
56.2837
52.2228
44.2277
36.4228
36.2288
32.2977
24.2954
20.417
20.2884
8.40109
6.33943
6.2662
6.21288
4.30225

KBC
DWASPORT
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STUDIO ALF
FRISØRER
whitewater
VELKOMMEN
NORGESTAXI
A-3457
NORGESTAXI
A-3174
DN 99565
Gjelder ikke buss.

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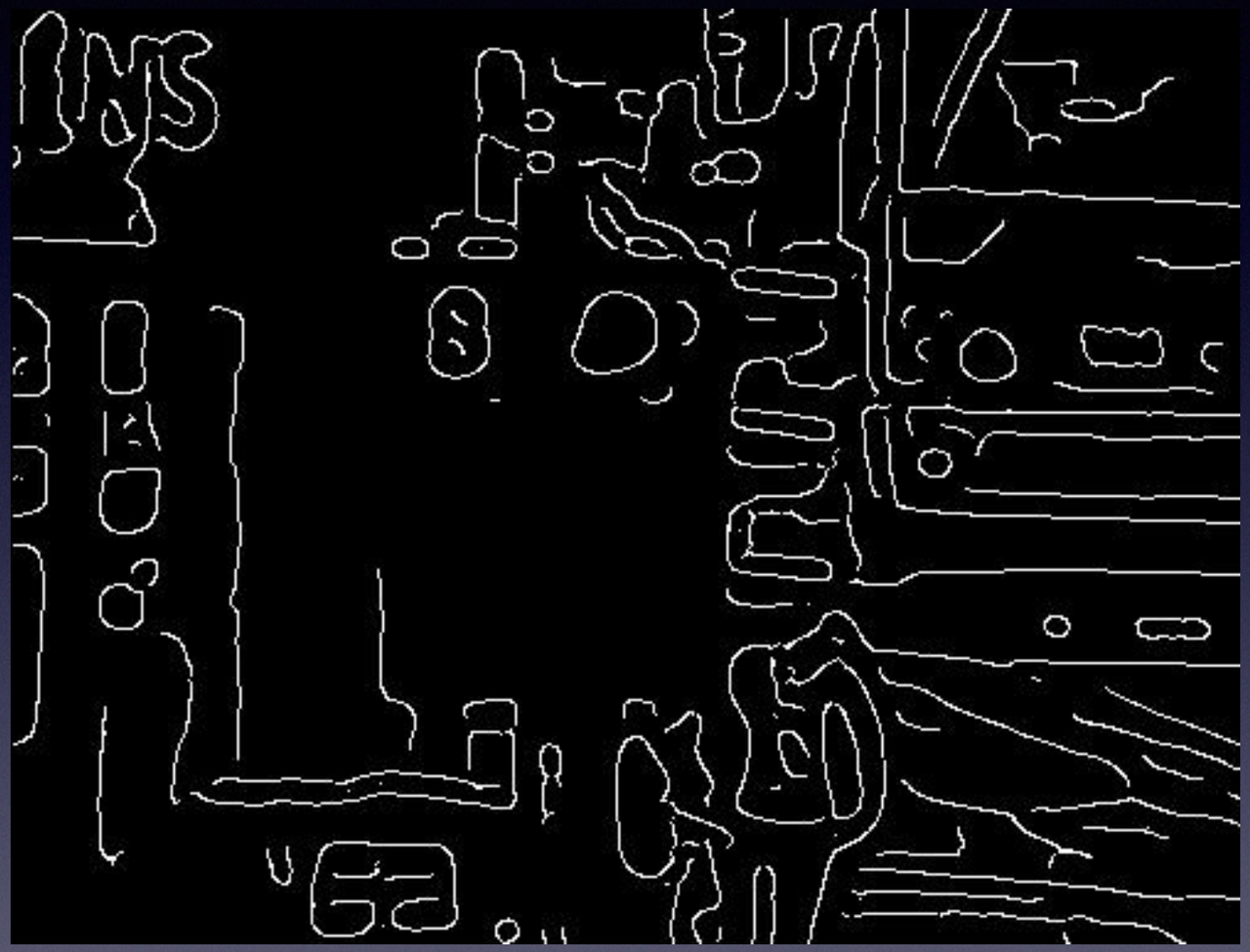


[slide idea by Fei-Fei Li]

C 1

Photo by Robert Whitman
PIL
OBO
LUS

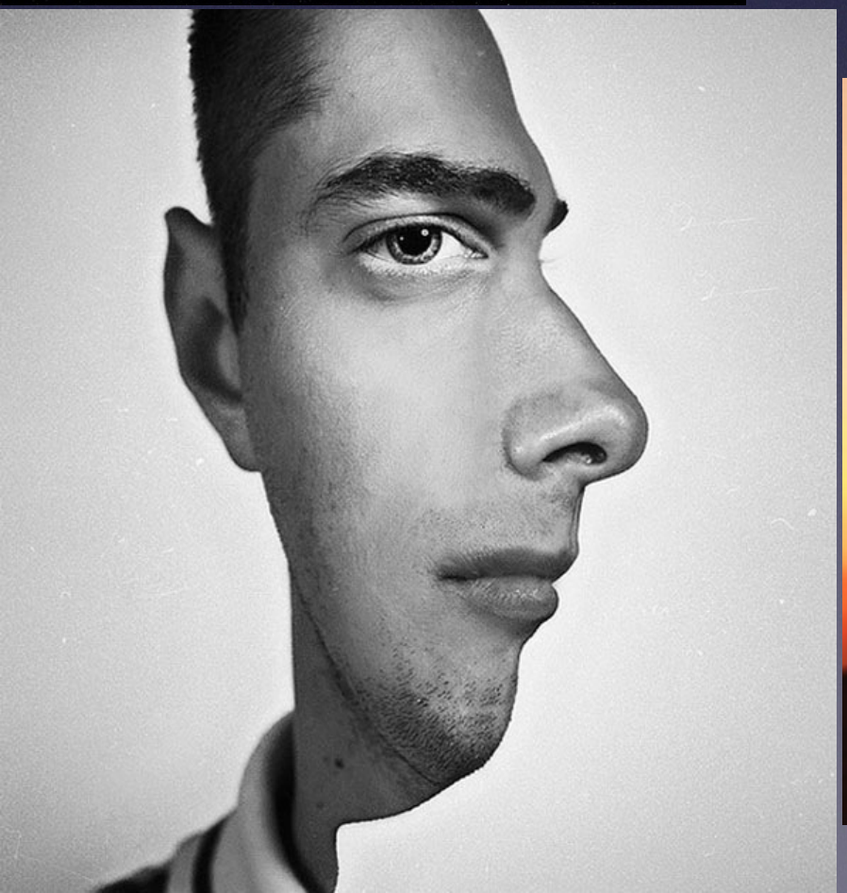
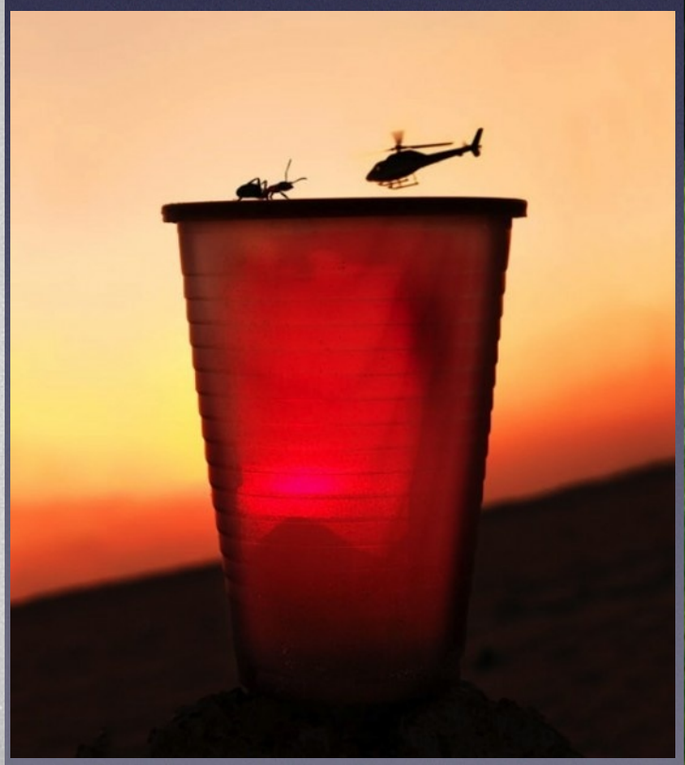
- Reconstruct: Given two or more 2D images of a scene, compute a 3D model of it

- **Detect: Is there one or more instance of x in this image?**

- **Localize: Where are the instances?**

- **Segment: Where are the boundaries of each instance?**

- Track: How is this instance moving from one image to the next?

- **Recognize = classify: What is this?**

models and expectations