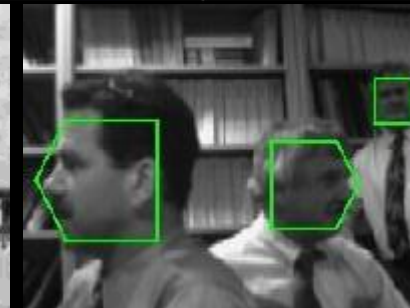
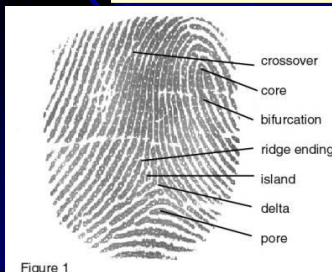
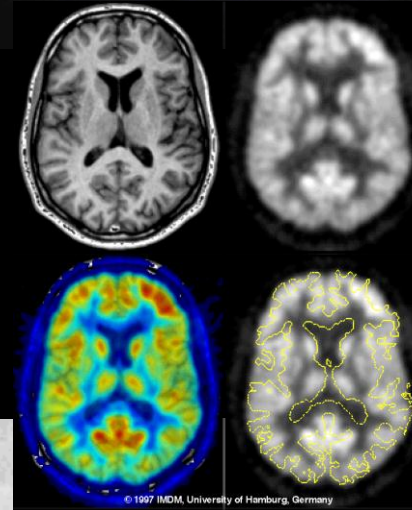


Image Recognition has a wide variety of cool apps

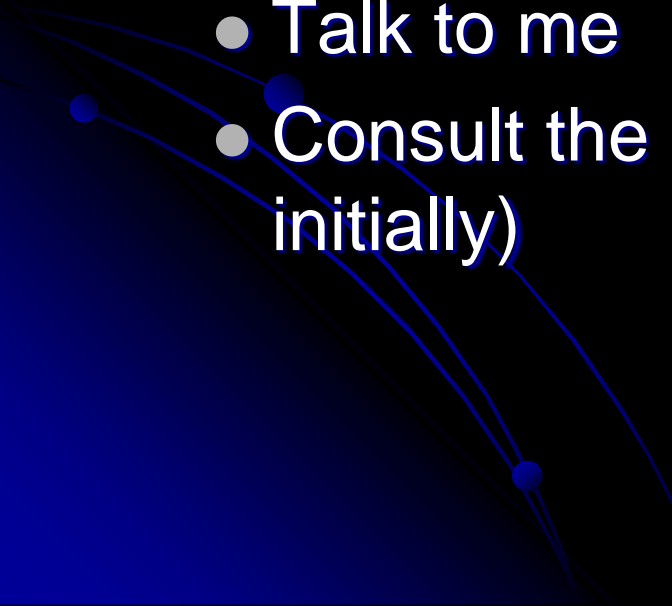
- Robotic control
- Quality control of manufactured parts
- Medical imaging
 - Images from Dr. Walter
- Biometrics
- Photograph analysis
- Surveillance
- Face detection
- Color matching by cell-phone
- 3D photography/mapping (Google's street view)



Term Projects

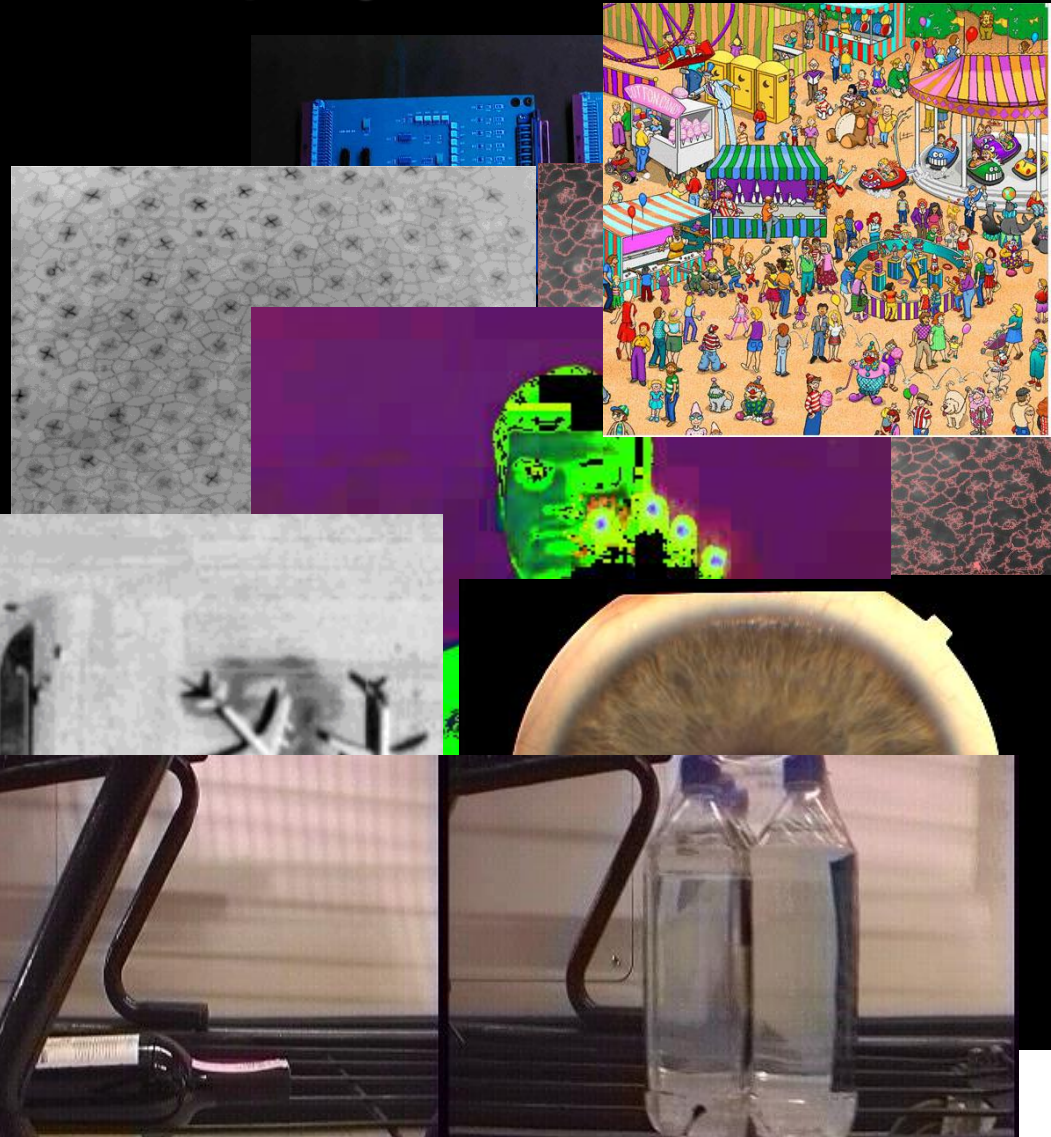
- Requirements
 - Interesting to you
 - Anywhere on theoretical to real-world spectrum
 - Could lead to publishable work
- Teams of 2-3 (solo OK if needed)
- **Each person email me a topic (1 annotated slide, with ≥ 1 reference) by Monday at noon**
- If you have already formed a team, you need only submit 1 proposal per team.
 - Will give a **2-minute, 1-slide “lightning talk” on Tuesday** and projects will be chosen by the end of class.

How to start

- What interests you, either in the list or on your own?
 - Be creative!
 - Dig some
 - Talk to me
 - Consult the literature (at least 1 reference initially)
- 

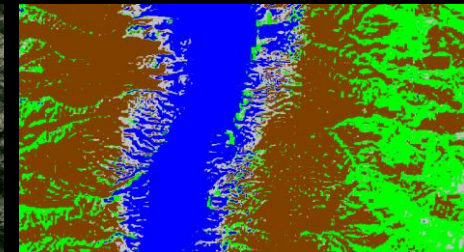
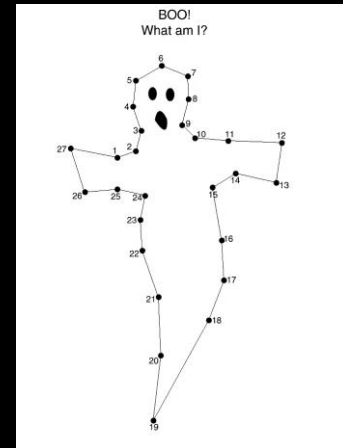
Past CSSE463 projects

- Misapplied coating
- Counting Fly-eye cells
- Gesture recognition
- Aerial airplane detection
- Iris detection
- Image tagging
- Shopping cart surveillance for Baesler's
- Where's Waldo?
- Connect the Dots



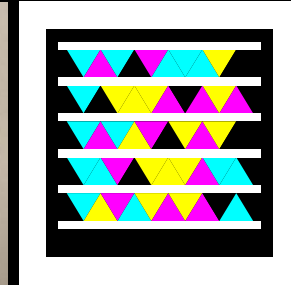
Past projects, 2009-10

- Road-sign detection
- License-plate detection
- Recognizing Constellations
- IGVC Obstacle and Line Detection
- Connect the Dots
- Geographic Feature Extraction from Satellite Images



Past projects, 2008-09

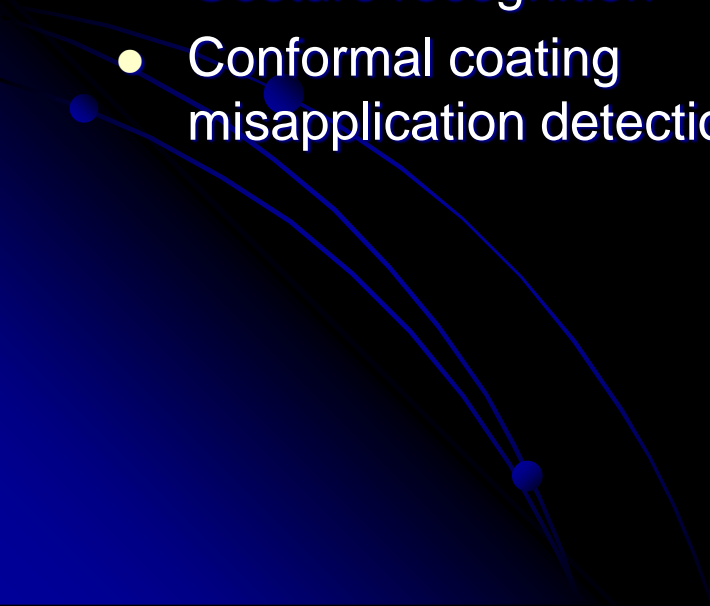
- Tennis-ball tracker in video (in OpenCV, not MATLAB)
- Projectile Hole Recognition
 - For senior project
- High-capacity color barcodes
- Road location from frontal view
- Towards automatic generation of *Miis* from photos



Past projects, 2007-08

- Handwritten digit recognition for Tablet PC
- ID'ing the goal and ball in RoboCup
- Playing Card ID system
- Salamander recognition (for biologists)
- Talk show recognition from video stills
- NEAT Face Detection
- Towards Object Recognition, using OpenCV and real-time videos
- Painting genre classifier

Past projects, 2006-07

- Automated image region tagging
 - Spot the differences
 - Connect the dots (digit recognition)
 - Counting cells in fly retinas
 - Gesture recognition
 - Conformal coating misapplication detection
- 

Past projects, 2005-06

- Where's Waldo?
 - Face recognition in video
 - Iris detection
 - Sport classification
 - Eigenfaces
 - Aircraft detection in aerial images
 - Baesler's shopping cart detection
- 