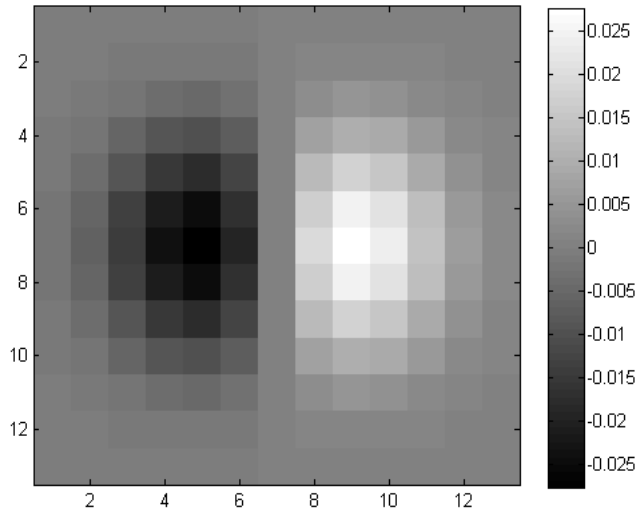
Antonio's Week

5-28

Machine Learning Edges

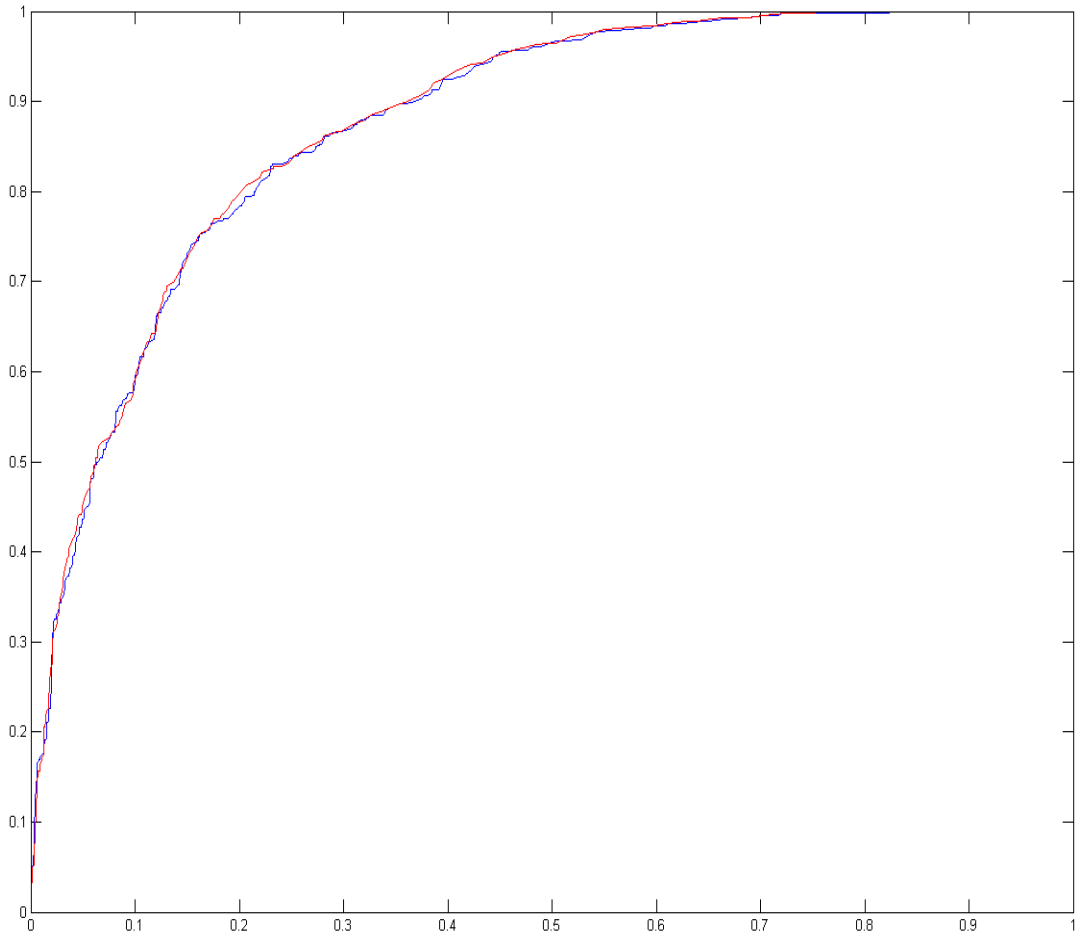
- Finding Features:



- Unique Feature:
  -based on symmetry
- Sum pixels, subtract 169*median value.
- Values closer to 0 are less likely to be edges.

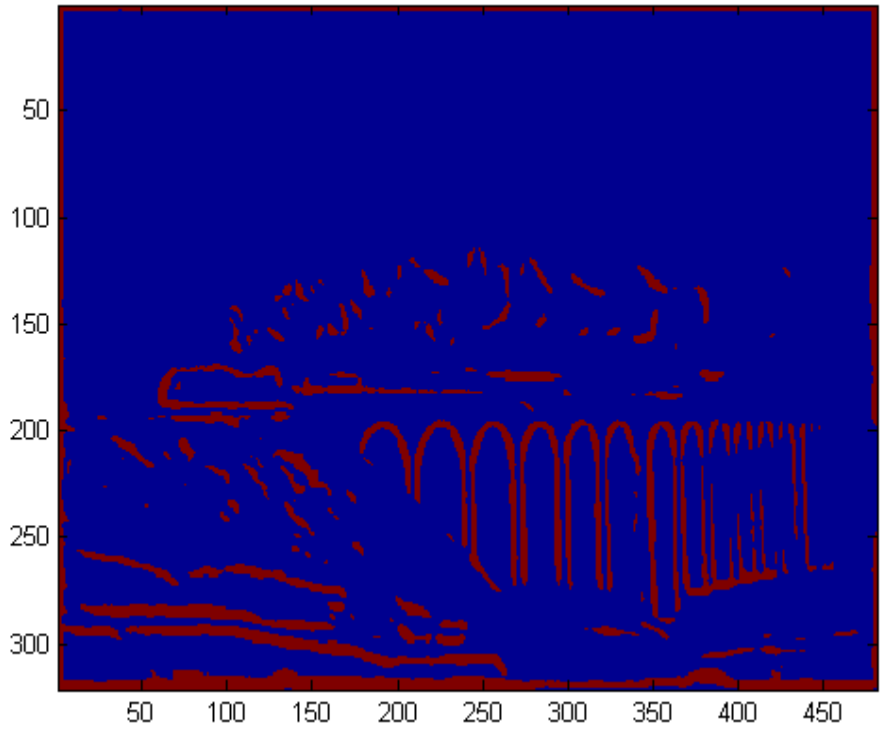
Machine Learning Edges

- Results:
- Red is /w unique
- Not as much improvement as I hoped
- Only 100 iterations, small step.



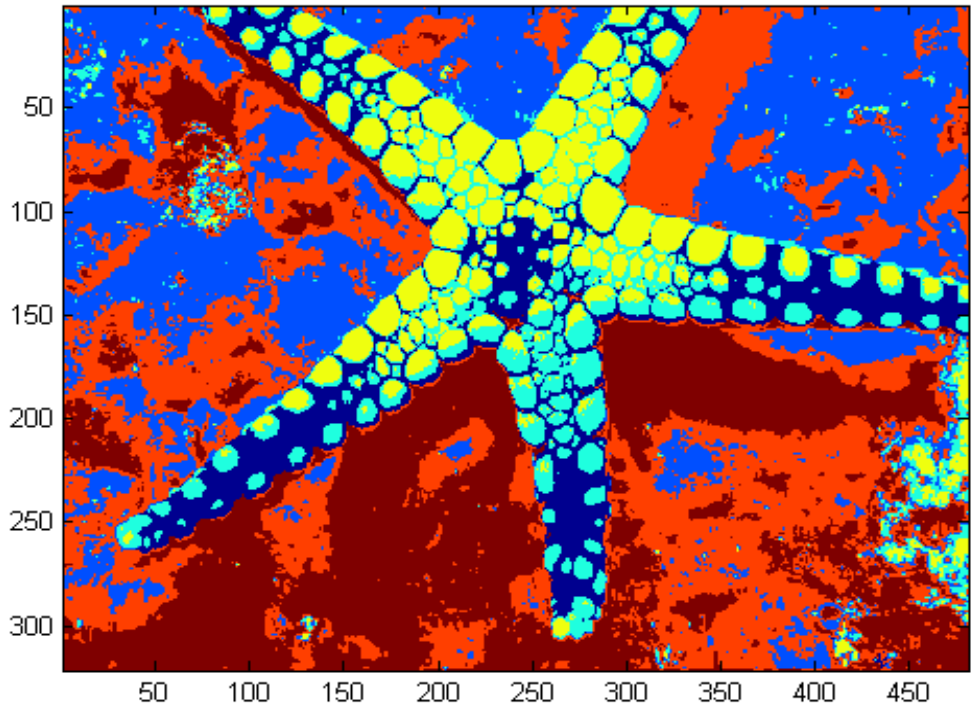
Machine Learning Edges

- Applied to an image:



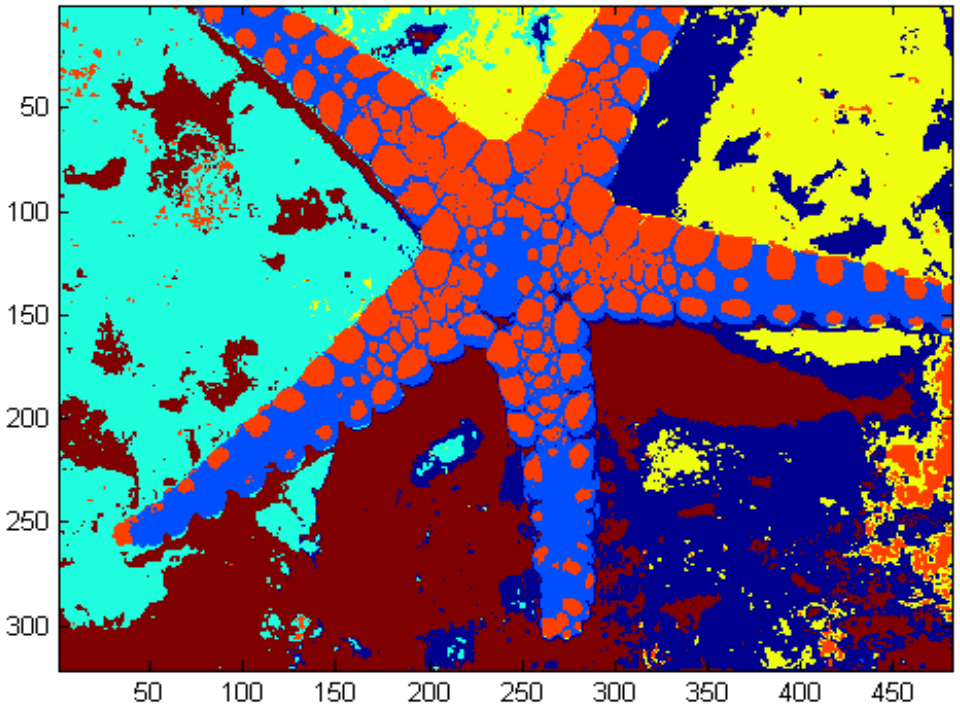
K-means

- Separate image by color only (k = 6):



K-means

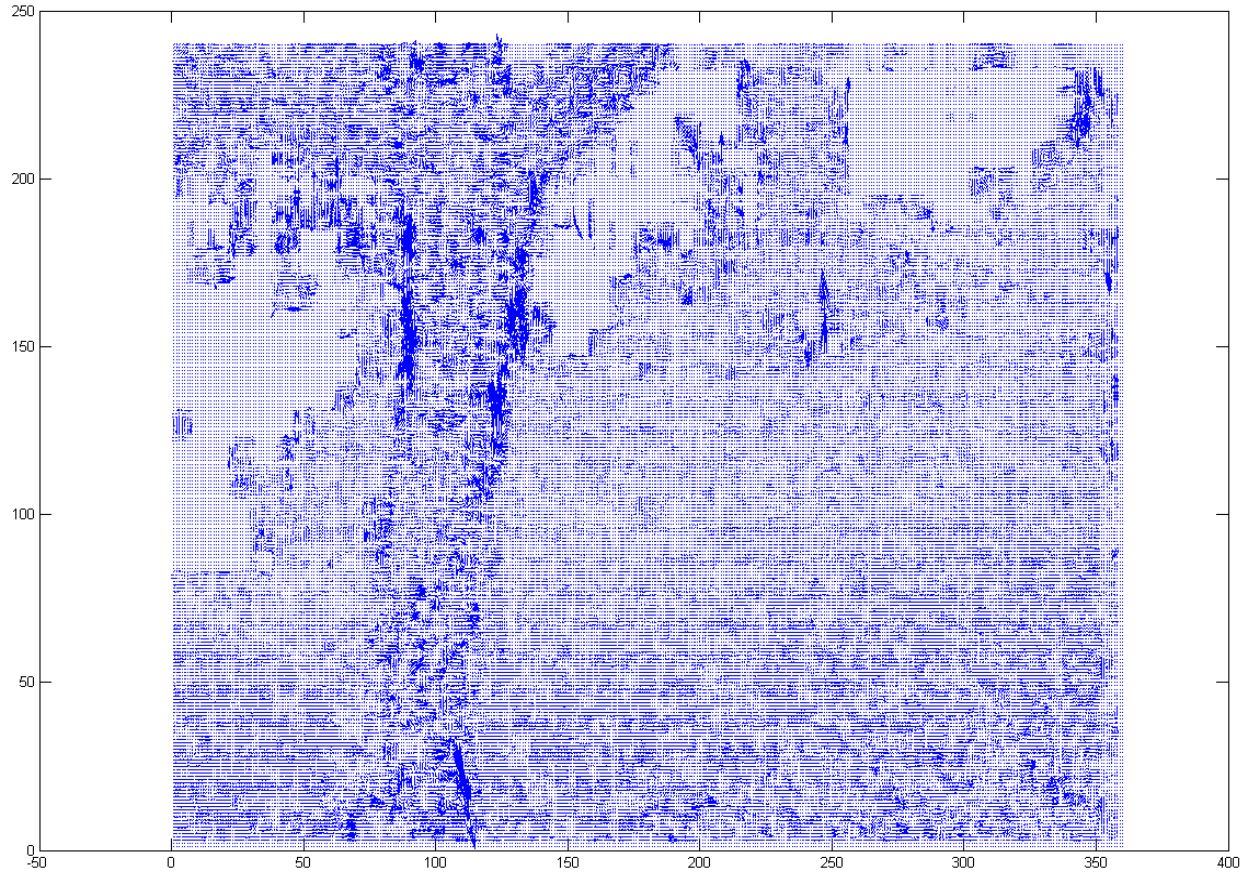
- Separate image by color and position (k = 6):



Optical Flow

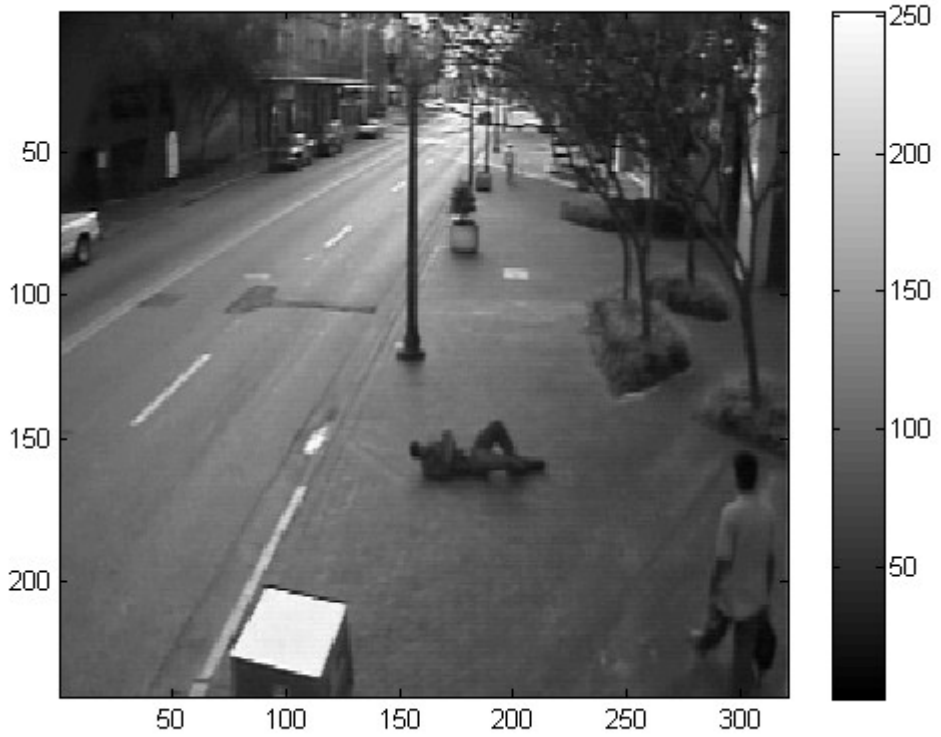
Optical Flow

- Lucas-Kanade w/o Pyramids:



Background Extraction

- Given a video clip from a stationary camera, isolate the background and foreground values.



Background Extraction

Front-Runners

- One-Shot Recognition
- Scene Understanding by Statistical Modeling of Motion Patterns
- Camera Trajectory Recovery Problem – Omar's