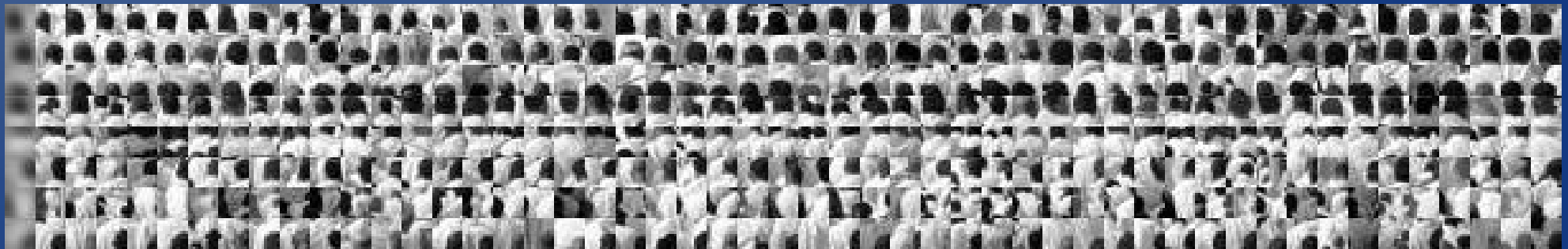# Week 5
Cody Seibert

Dense Sift

- Fixed some bugs in my code

- Using dense sift to create the clusters

- Averaging the cluster patches results in some visible features

Dense Sift (Centers and Patches)

Attempt to Count

- Choose the best cluster center (by hand)

- Compute a distance map from each pixel to the best cluster center.

- Threshold on distances less than X, where X is from 1-1000

- Bwlabel the threshold to get counts
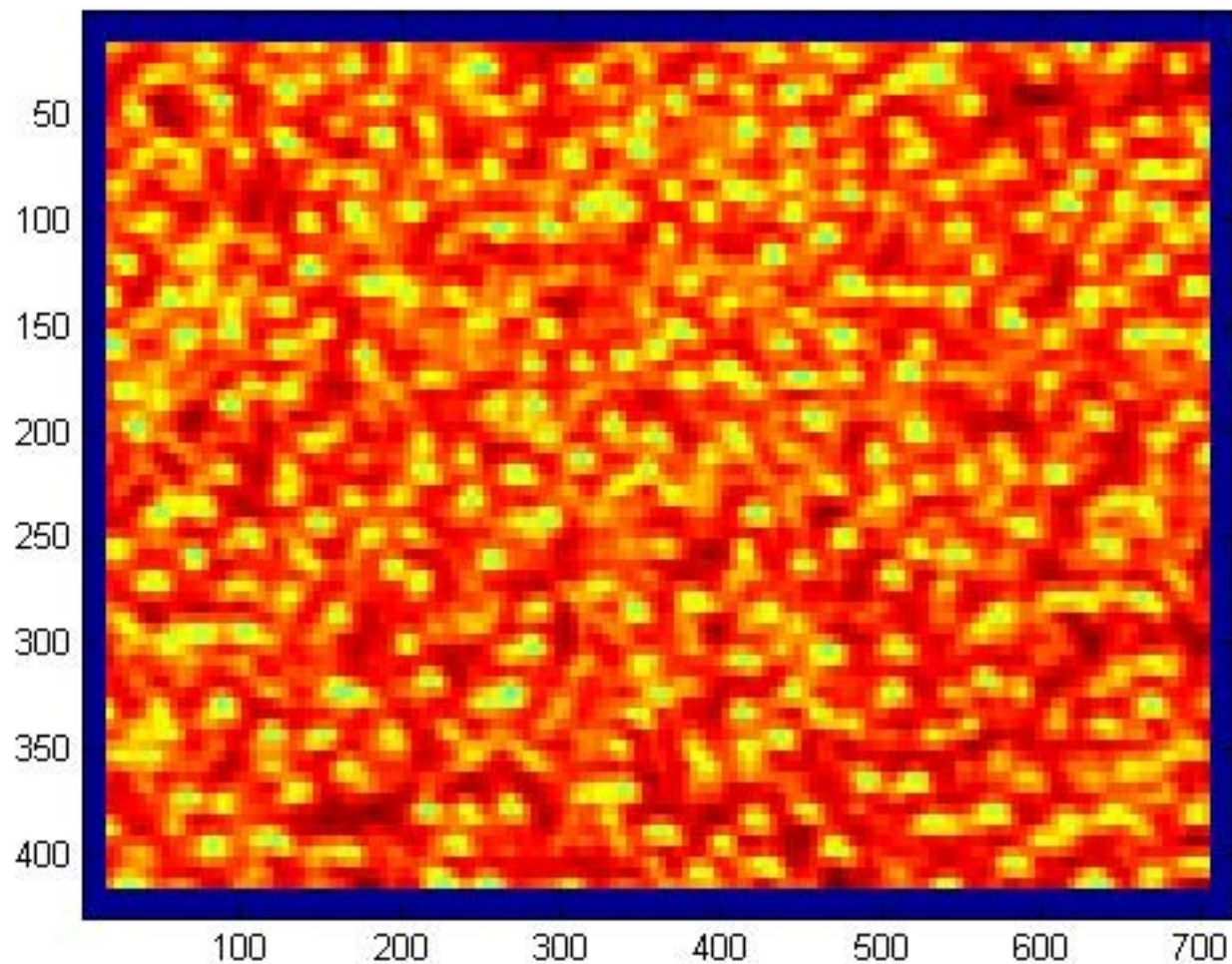
Original Image
(counted ~325 by hand)

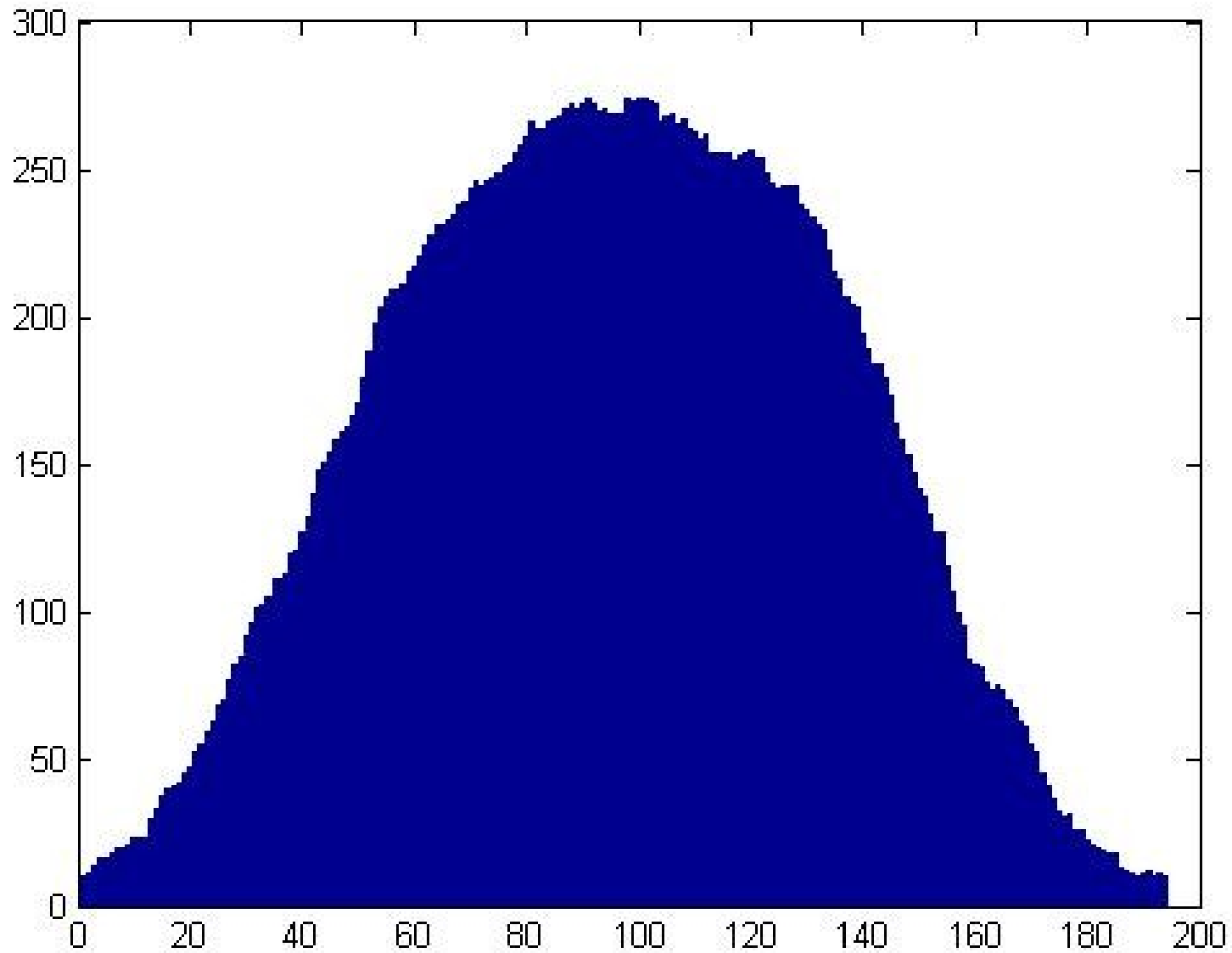# Center Descriptor
(2nd row)

Distance Map
(Blue is close; red is far)

Bar Graph of Counts

Counting Error

- The original count was ~325; this method resulted in ~275

- Edges of image are not being processed

Need to Solve

- Choosing the best spatial bin size for the descriptor

- Choosing the cluster/s which are best for counting
    - Typically the average of the best clusters have features (instead of being solid color)
    - In different instances, these features are black circles or some form of silhouette

Fourier Transform

- Read some about it

- Need to see if it can help find the bin size or location of a person