Week 8

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Assignment: K-Means Clustering and PCA

Week 8

Tutorial for ex7: computeCentroids()

Tom Mosher Mentor Week 8 · 2 years ago

The method in this tutorial iterates over the centroids.

The function computeCentroids is called with parameters "X, "idx" and "K".

"K" is the number of centroids.

"idx" is a vector with one entry for each example in "X", which tells you which centroid each example is assigned to. The values range from 1 to K, so you will need a for-loop over that range.

You can get a selection of all of the indexes for each centroid with:

sel = find(idx == i) % where i ranges from 1 to K

Now we want to compute the mean of all these selected examples, and assign it as the new centroid value:

centroids(i,:) = mean(X(sel,:))

(Note that this method breaks if sel is a null vector (i.e. if no examples are assigned to centroid 'i'. In that case, probably should just update centroid(i,:) if sel is a non-null vector.

Repeat this procedure all each centroid. The function returns the computed centroid values.

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