function [X\_norm, mu, sigma] = featureNormalize(X)

%FEATURENORMALIZE Normalizes the features in X

% FEATURENORMALIZE(X) returns a normalized version of X where

% the mean value of each feature is 0 and the standard deviation

% is 1. This is often a good preprocessing step to do when

% working with learning algorithms.

mu = mean(X);

X\_norm = bsxfun(@minus, X, mu);

sigma = std(X\_norm);

X\_norm = bsxfun(@rdivide, X\_norm, sigma);

% ============================================================

end