**LOGISTIC REGRESSION**

**COST FUNCTION**

H = sigmoid(X \* theta);

J = sum(((-y)' \* log(H)) - ((1-y)' \* log(1-H))) / m; % J = constant \* sum((-1 \* y' \* log(H)) - ((1-y)'\* log(1-H)));

**GRADIENT DESCENT**

n = size(X,2);

for i = 1 : n

grad(i) = sum ((H - y)' \* X( :, i)) /m; % grad = constant \* X' \* (H-y);

end