Machine Learning Stanford Class

**Week 3 Notes**

Logistic Regression Classification

classification problems

email as spam

fraudulent transactions as fraudulent or not

tumor: malignant or bening?

classification problems predict variable y as either 0 (negative class) or 1 (positive class)

up to engineer to determine which is negative and which is positive

0 would be benign

1 would be malignant

eventually could have multiple values (1,2,3,4)

how to develop a classificaiotn algorithm

we could apply linear regression to it

then set a “threshold classifier output” if greater than classify one way if less than classifiy the other way

see tumor example in notes as to why this is not a good idea

linear regression would also produce values greater than 1 or less than 0

logistic regression (primarily called a classification algorithm)

outputs are always between 0 and 1

0<=h(x)<=1

training data

y’s are also between 0 and 1

Hypothesis representation

See notes from heare on out