

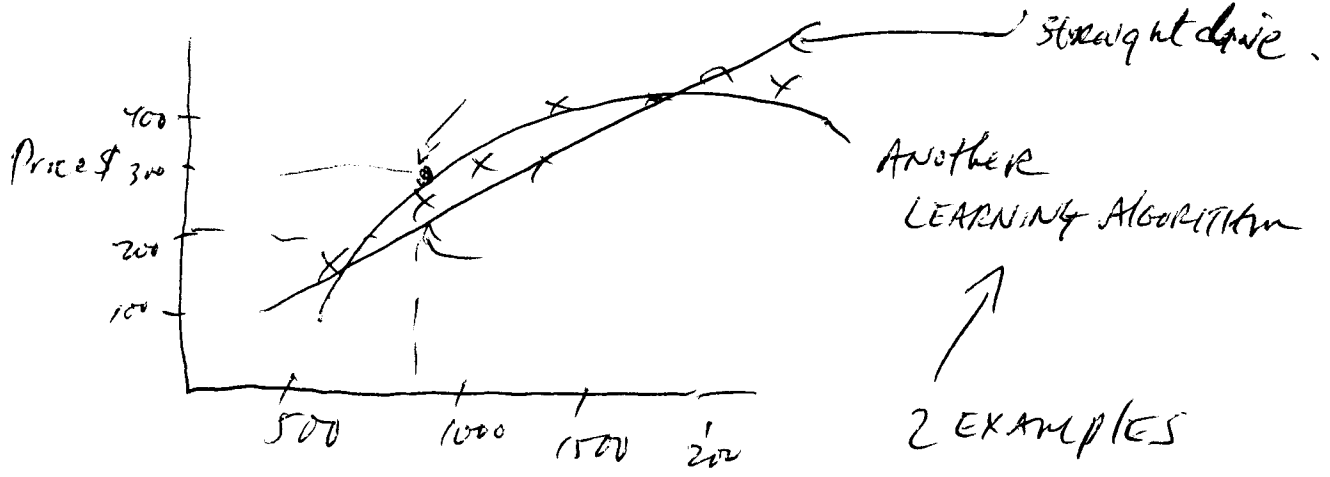
10/3/16.

MACHINE LEARNING

Supervised Learning

House price prediction

"Learning Algorithm"

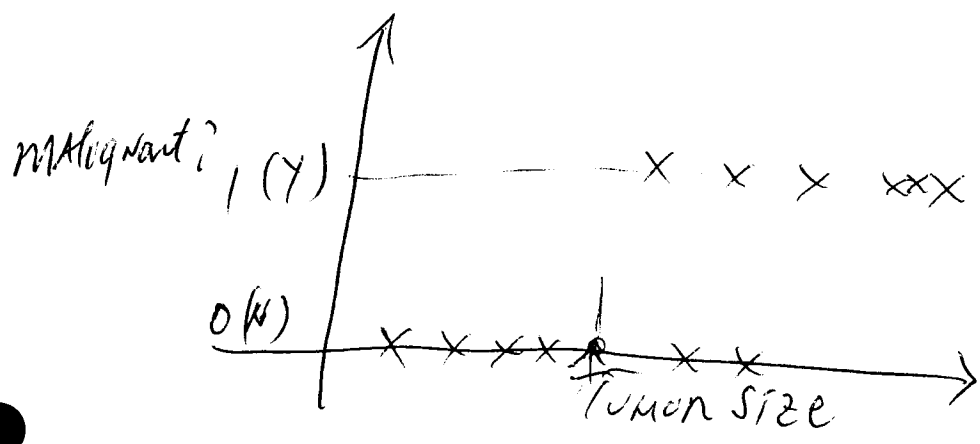


"Supervised Learning Algorithm" - give the RIGHT Price, "RIGHT Answers" GIVEN

Also called Regression : Predicts continuous Valued output (Price)

ANOTHER EXAMPLE.

Breast Cancer



THIS IS A CLASSIFICATION Problem

where there is a discrete valued output (0 or 1)

OR

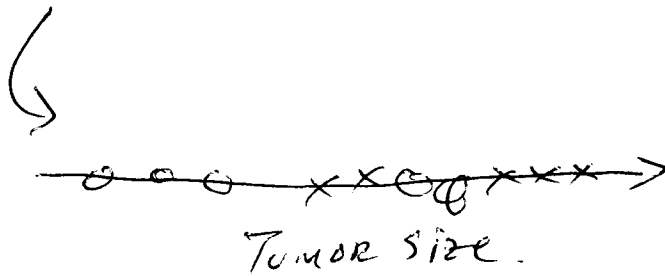
0, 1, 2, 3

1 2 3
Type 1, 2, 3

IF size is here CAN you ESTIMATE

IF Tumor is malignant?

There's another way to plot a classification problem 10/3/16

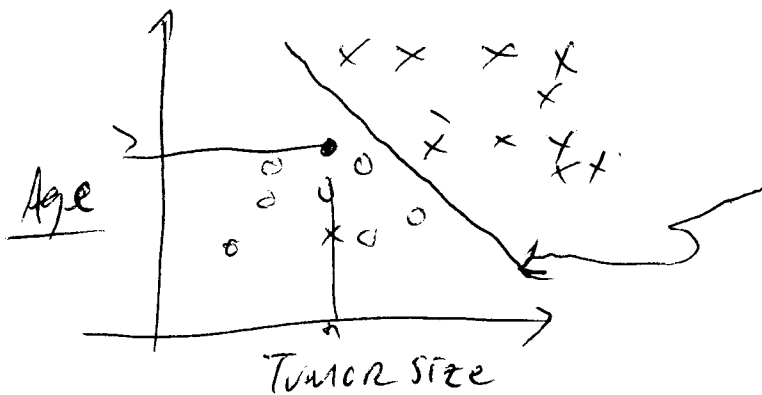


O = benign
X = malignant

↗
We are using one ~~ATTR~~ ATTRIBUTE.

But there can be other Attributes or features.

eg. Age



Learning algorithm
may draw line to
separate the data to determine
changes of tumor

2 features

other problems will have more features.

- clump thickness
- Uniformity of Cell size
- Uniformity of Cell Shape

One learning Algorithm can deal with an INFINITE ~~infinite~~ # of
features
or
attributes.