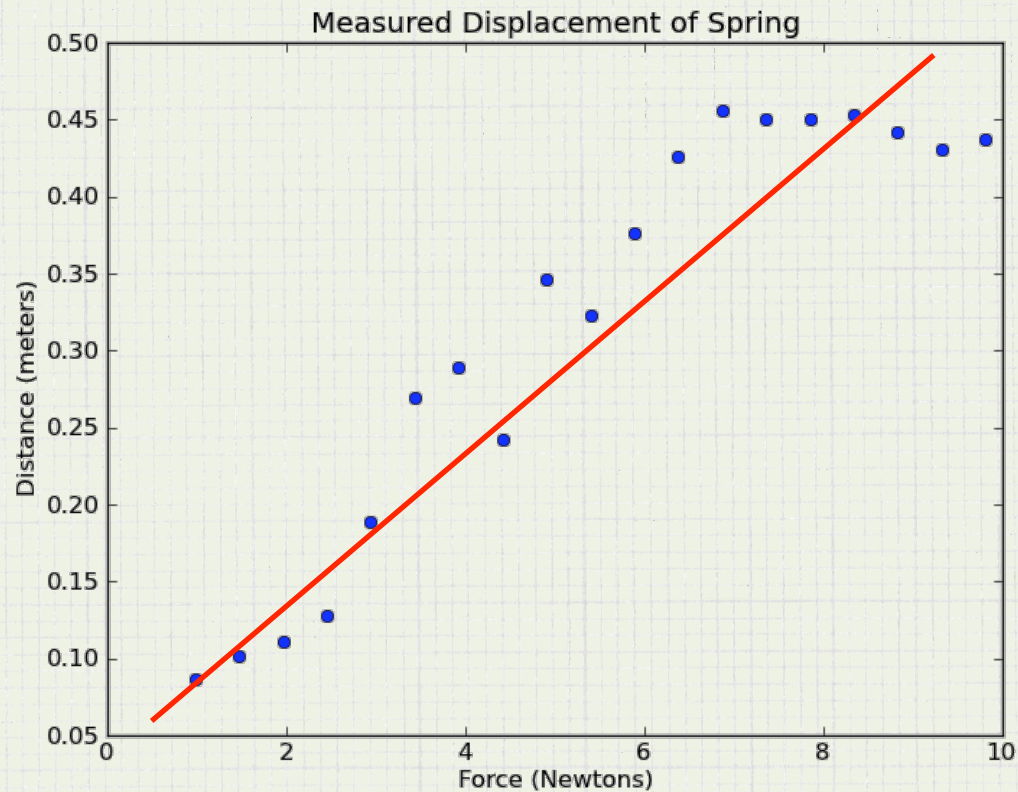


Have: observations, Want: most likely line



6.00x -- Understanding Experimental Data

Log Likelihood

$$\text{Maximize } \prod_{i=0}^{len(obs)-1} L_{err}(obs_i - pred_i)$$

Least Squares

6.00x -- Understanding Experimental Data

`pylab.polyfit(xvals, yvals, degree)`

```
# find a, b that minimize  
#  $\sum (yvals - (a*xvals + b))^2$   
a,b = pylab.polyfit(xvals, yvals, 1)
```

```
# find a, b, c that minimize  
#  $\sum (yvals - (a*xvals^2 + b*xvals + c))^2$   
a,b,c = pylab.polyfit(xvals, yvals, 2)
```