Jon Organ

CS677

Homework 8, Linear Regression Best Window

**Question 1:**

Saving W Average P/L by trade graph...

A graph with a line graph

Description automatically generated

The optimal W\* value of W is 8

**Question 2:**

Saving R Squared value by Day for Y2 graph...

A graph with blue lines

Description automatically generated

The average R squared value for year 2 is 0.4534499435614839

The R squared value is all over the place and doesn't consistantly explain price movements

**Question 3:**

In year 2, trading with linear regression resulted in 18 long positions and 18 short positions

**Question 4:**

Year 2, average P/L per trade by position type:

Long position: $1.752556044639962

Short position: $-7.894919286223335e-16

**Question 5:**

Year 2, average number of days position held by position type:

Long position: 8.8889

Short position: 6.0556

**Question 6:**

In year 1, trading with linear regression resulted in 14 long positions and 14 short positions

Year 1, average P/L per trade by position type:

Long position: $0.9538501392364428

Short position: $1.0150610510858574e-15

Year 1, average number of days position held by position type:

Long position: 9.0714

Short position: 9.2857

The differences in the performance of this W\* (8) are generally minimal between year 1 and year 2, except for the average P/L of long positions, that was twice as high in year 2