Probability and Statistics

Linear Regression Project

Required elements:

1. Form a group of 2-3.

2. Pick an area of statistical exploration and pick two quantitative variables to study. Do some research and find some data from sports, business, science, whatever you prefer.

However, there are some restrictions.

    A. You cannot use a dataset we have already used in class.

    B. You cannot use "time" as one of your variables. You need to pick two quantitative variables, but not a time plot. Be clever, be unique, be interesting.

3. Submit a written proposal of the data you wish to collect. It must be approved before you can submit the completed project. *Proposal requirements*:

    A. Include names of all students in group.

    B. Identify explanatory and response variables.

    C. Identify where you plan to find your data (don't just write, "the internet"). Give us at least a general source (name of website, name of publication, if you will conduct a survey yourself, etc.).

    D. **Due Monday, September 21st**.

    E. Proposal returned to you on our next class.

4. *Complete the project.*

      A. You should do a detailed regression project. You should include graphs, equations, and interpretations of calculator-generated output. If you think a transformation or re-expression is appropriate, do it and present a full analysis of the result of the transformation. You should also include how one may use your model. For example, who cares about a potential mathematical relationship between the variables you chose? Why is it relevant to somebody?

      B. Must include complete source citations for your data (MLA format).

      C. Must be word-processed. Use software to aid with graphs and calculated equations.

      D. Worth 200 points.

      E. **Due Thursday/Friday, October 13th/14th.**