GENERAL ASSEMBLY

DATA SCIENCE
VISUALIZATION

I. WHAT IS THE PURPOSE OF VISUALIZATION?
II. TYPES OF VISUALIZATION
III. VISUALIZATION TOOLS

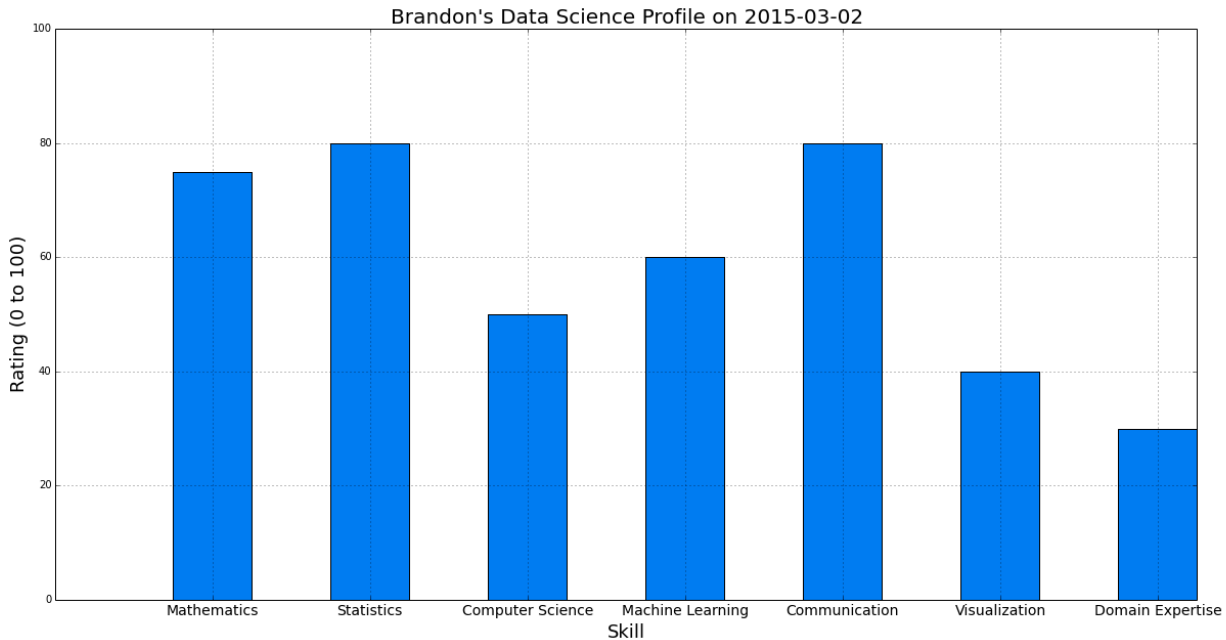
I. WHAT IS THE PURPOSE OF VISUALIZATION?

1. Exploration
   - Get an idea of what your data looks like
   - Is it spread out or clustered around a few points?
2. Observation
   - Understand relationships in your data
   - Do certain variables tend to “move” together?
3. Communication
   - Show your results to others

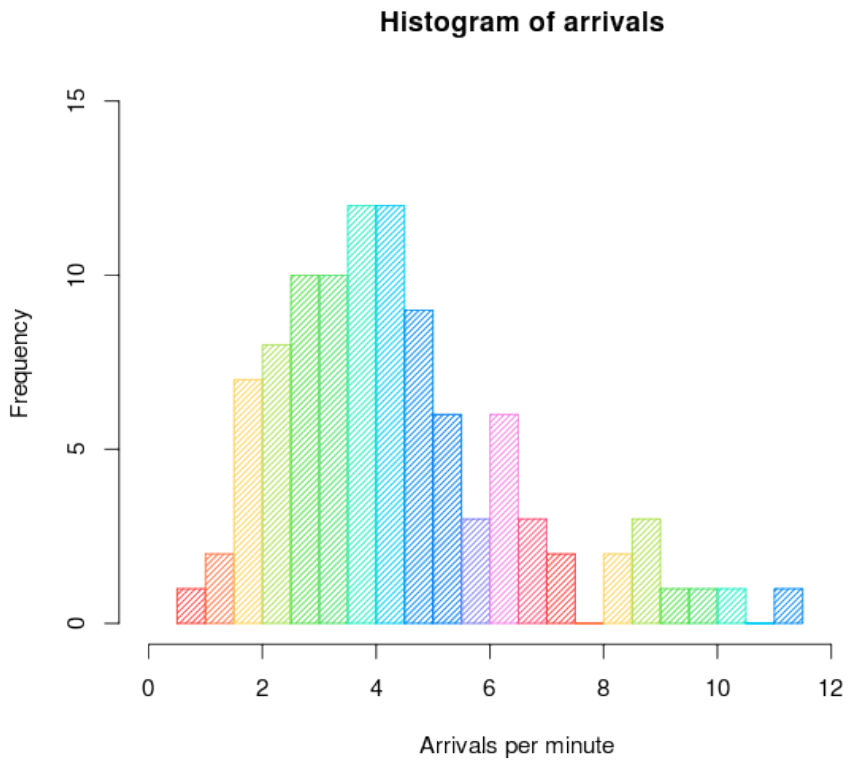
II. TYPES OF VISUALIZATION

- Bar plots
- Histograms
- Box plots
- Scatter plots
- Scatter matrix

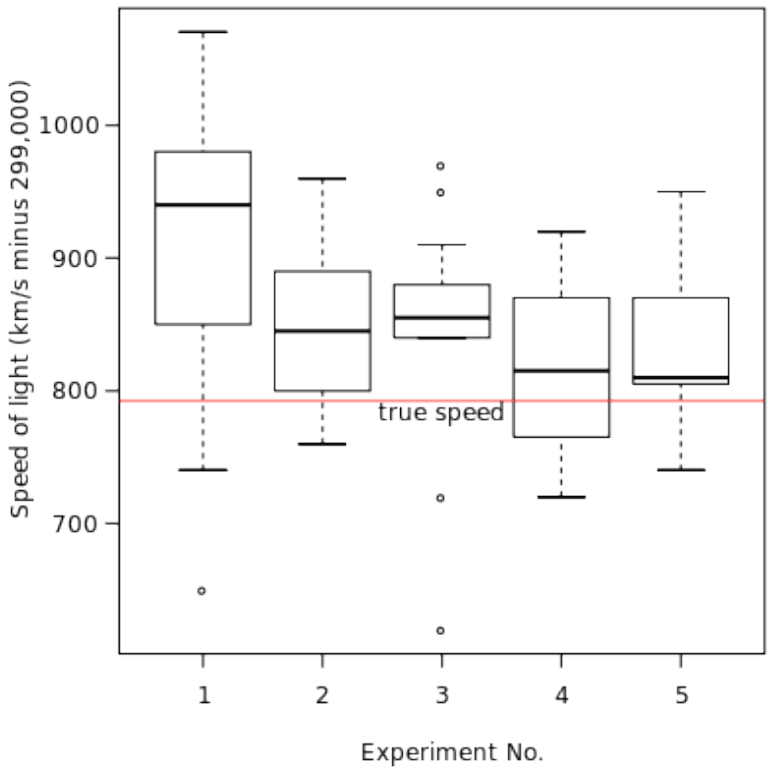
- Purpose: Show a comparison across different categories or variable values



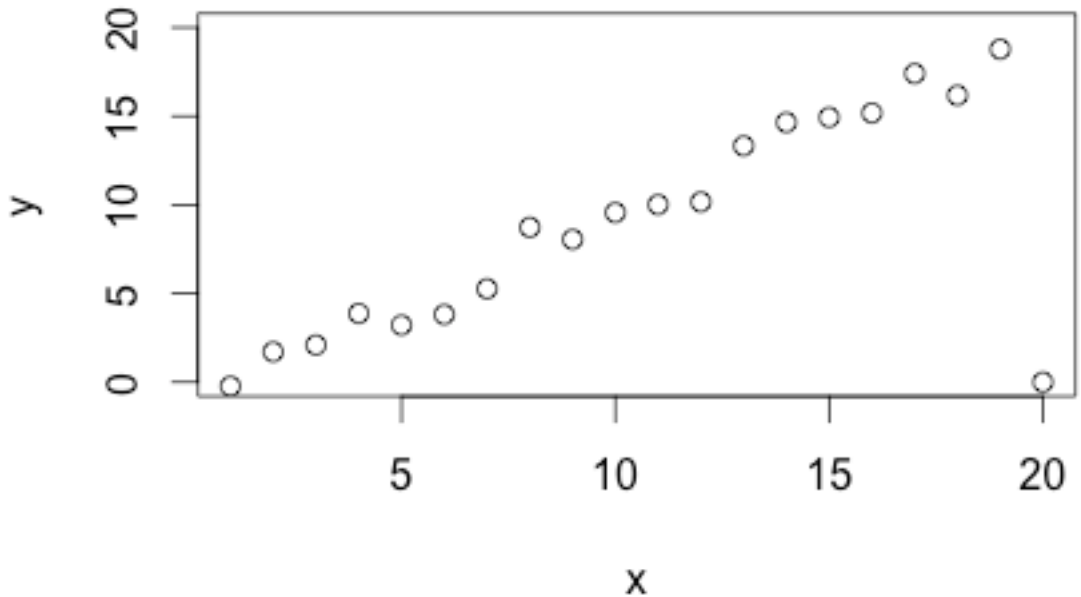
- Purpose: Shows the "distribution" of a numerical variable



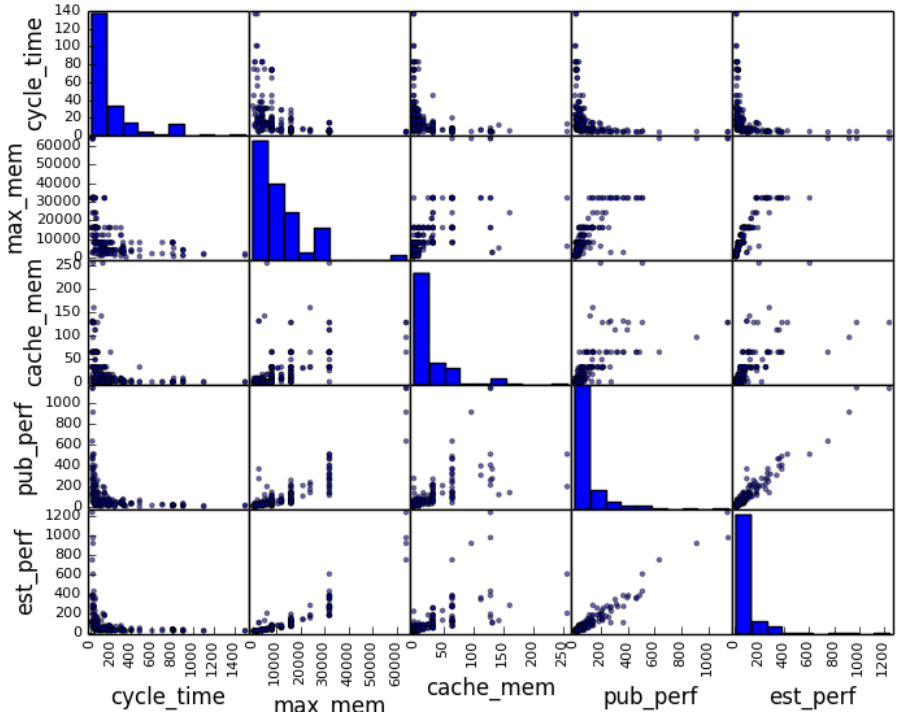
- Purpose: Shows a numerical variable's quartiles; gives a summary of the variable



•Purpose: Shows the "relationship" between two numerical variables; how does one move with the other?



- Purpose: Shows the "relationships" between all numerical variables



III. VISUALIZATION TOOLS

- Pandas/matplotlib plotting
- Seaborn (Python library)
- Bokeh (Python library)
- GG Plot (ported from R)
- Tableau
- D3 (JavaScript library)