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|  | Anthony Olivieri  Syracuse iSchool  Applied Data Science  SUID: 370774094  aolivier@syr.edu | |
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Portfolio

# PROJECTS

## Data Visualization

The emphasis of this project was to convey meaningful insights through visual communication. Data as raw numbers or text requires the audience to stop, focus, concentrate, and possibly calculate values to derive meaning. To express that value quicker and in a more memorable fashion the data can be arranged in symbols and colors. Humans can evaluate colors and symbols –sizes, positions, patterns—in a preattentative manner, meaning communication is instant and more pleasing to the audience.

**Technologies**: R, ggplot, Illustrator

**Techniques**: data mining, grouping and aggregation, plotting, data transformation, illustration, color theory

**Ethical consideration**: The charts on this poster can only convey insights into the data as it is: raw arrest records from Pittsburgh City Police. There is no way to display the effects of generational poverty or policing patterns.

**Project document**: [PDF Poster](https://github.com/oxenfree/Syracuse-iSchool-Data-Science-Portfolio/blob/master/Projects/Data-Vizualization/Pittsburgh-Crime-Stats-Poster.pdf)

## National Real Estate Analysis

1. Describe a broad overview of the major practice areas in data science.

Learning the application domain:

Knowing how data can be represented:

Seeing the big picture of a complex system:

Data transformation and analysis:

Attention to quality:

Ethical reasoning:

1. Collect and organize data.
2. Identify patterns in data via visualization, statistical analysis, and data mining.
3. Develop alternative strategies based on the data.
4. Develop a plan of action to implement the business decisions derived from the analyses.
5. Demonstrate communication skills regarding data and its analysis for managers, IT professionals, programmers, statisticians, and other relevant professionals in their organization.
6. Synthesize the ethical dimensions of data science practice (e.g., privacy).