ARTS1422 HW2

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1 Requirements

All code has been tested on Chrome and Safari only. They are guaranteed to work with D3.js.v5

2 Task 1

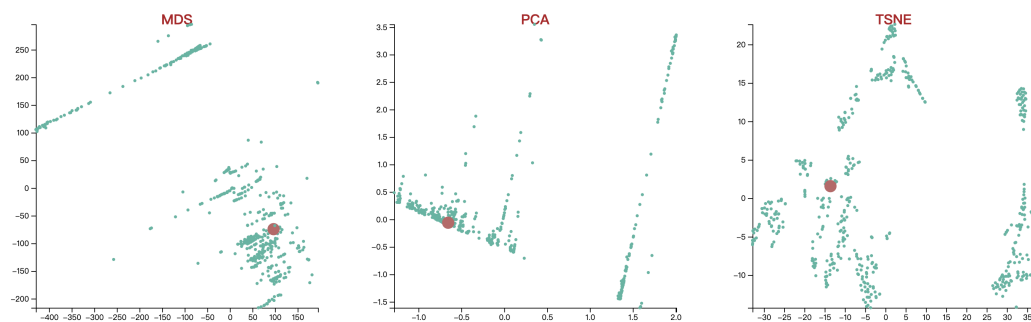Dataset: http://lib.stat.cmu.edu/datasets/boston

The original dataset is designed to be human-readable instead of python-friendly, so manual formatting is required.

Then we work with the well-formatted data. (*boston.csv*)

We can easily import these algorithms from scipy and process them for rendering.

3 Task 2

Open *main.html* (with *boston_MDS.csv*, *boston_PCA.csv* and *boston_TSNE.csv* in the same directory) in browser.

As shown above, when mouse hover certain data points, all corresponding points in three graphs is highlighted.

Evaluation: A very vital dimension in the dataset is **AGE**, which means **proportion of owner-occupied units built prior to 1940**. Only PCA has distinguished them very well, keeping them monotone along with a line in the plot.