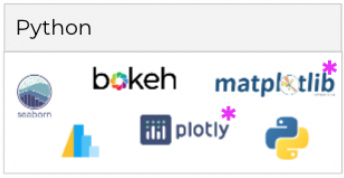
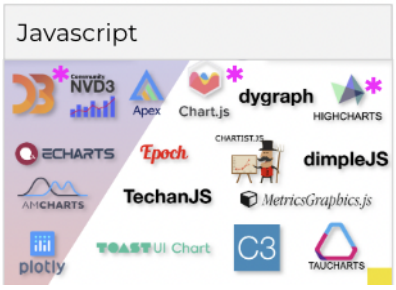
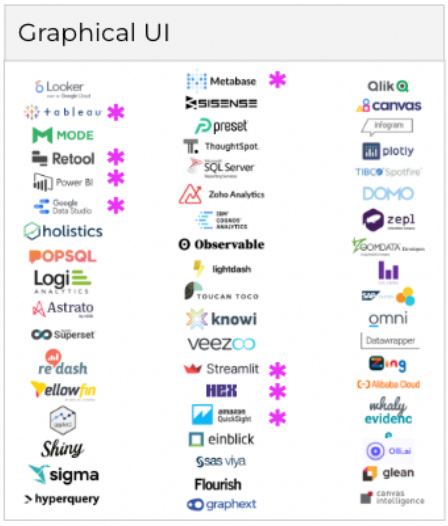
CDS DS 594
Lec 05

Data Visualization Technologies

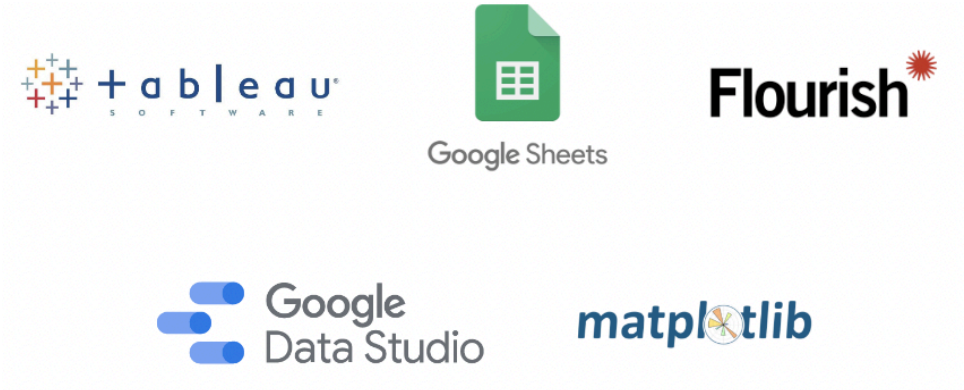
1. Tool Considerations
    a. Code-based or Graphical UI
        i. Code-based are harder to use
        ii. Graphical UI can be limited in terms of features but it is one-click
    b. On premise or Cloud
        i. Install on locally or work on Cloud-based
        ii. Local → can customize and the performance is better
        iii. Cloud → can leverage the resource on the Cloud (Device independent)
    c. Open source commercial
        i. Developed by community or by commercial organizations
    d. Free or Paid
    e. Support and Community
    f. Performance
    g. Scale
    h. Pricing Model
        i. Free
        ii. License
        iii. Monthly/Annually
    i. Analysis or Presentation
        i. What to accomplish
2. Data Visualization landscape
    a. 

        i. Charts and graphs to visualize the code
        ii. Web applications and front end (can also be used for other reasons)
    b. 

        i. Generally web applications

c. 

3. Demos

a. 

4. Matplotlib
    a. Code-Based
    b. Installed
    c. Open-source
    d. Free
    e. Community
    f. Large Scale Data
    g. Good for coding use cases
5. Google Sheets
    a. Graphical UI
    b. Cloud
    c. Commercial
    d. Free
    e. Support and Community
    f. Small Scale Data
    g. Good for Analysis

6. Flourish
    a. Graphical UI
    b. Cloud
    c. Commercial
    d. Freemium
    e. Support and Community
    f. Small Scale Data
    g. Good for web publishing
7. Google Data Studio
    a. Graphical UI
    b. Cloud
    c. Commercial
    d. Free
    e. Support and Community
    f. Medium Scale Data
    g. Good for reporting
8. Tableau Software
    a. Graphical UI
    b. Installed (w/ Cloud option)
    c. Commercial
    d. Paid
    e. Support and Community
    f. Medium Scale Data
    g. Good for analysis & presentation