

Do Practice HW Problems!

Everything from M1_StudyGuide

Everything from M2_StudyGuide

For each of the Data Structures covered so far (see below), know:

- All relevant Operations
 - $O(???)$ for each
 - Worst case, Best case, Average case
 - Theoretical (non-Python) Algorithms for each (including recursive ones), and including drawing pictures of linked-lists, arrays, trees, hash tables, etc.
 - Be able to Read/Write/debug Python code for each operation
- Data structures:
 - Graphs
 - Red-Black Trees

Data Structures since midterm 2:

Graph

- Operations:
 - Creating/storing in dictionary of Vertices
 - DFS
 - BFS
 - Tsort
 - Bipartite/Bicolorable

Red-Black Tree

- Operations:
 - add/insert
 - Understand the logic and concepts (not necessary to understand code).

Code Reading/Writing

- Be able to read/write Python code for operations of the covered data structures, especially for the operations implemented in labs/projects.
 - Labs: 8
 - Projects: 4, 5

Random things to make sure you know:

- How to construct a Huffman Tree, based on frequency counts.