204184: Data Structures

SE (E&TC/Elex) - 2019 Course

Other Resources

Animations

- Yashavant Kanetkar, "Data Structures Through C", BPB Publication, 2nd Edition (CD available)
- Wacom (Pen Tablet)

Data Structures and its Real life Applications

https://www.youtube.com/watch?v=d_XvFOkQz5k

Unit 1- Introduction to C Programming

https://www.cs.usfca.edu/~galles/visualization/RecFact.html
https://www.cs.usfca.edu/~galles/visualization/RecReverse.html

Unit 2- Searching and Sorting Algorithms

https://www.cs.usfca.edu/~galles/visualization/Search.html
https://www.cs.usfca.edu/~galles/visualization/ComparisonSort.html

Unit 3 – Stack and Queue:

https://www.cs.usfca.edu/~galles/visualization/StackArray.html
https://www.cs.usfca.edu/~galles/visualization/QueueArray.html

Unit 4 - Linked List:

https://www.youtube.com/watch?v=SuBch2MZpZM
https://log2base2.com/courses/trial-videos/linked-list-basics-trial
https://visualgo.net/en/list
https://yongdanielliang.github.io/animation/web/LinkedList.html
https://www.cs.usfca.edu/~galles/visualization/StackLL.html
https://www.cs.usfca.edu/~galles/visualization/QueueLL.html
https://www.cs.usfca.edu/~galles/visualization/Algorithms.html

Unit 5- Trees:

https://www.cs.usfca.edu/~galles/visualization/BST.html
https://people.ok.ubc.ca/ylucet/DS/AVLtree.html

Unit 6- Graphs:

https://www.hackerearth.com/practice/algorithms/graphs/depth-first-search/visualize/
https://people.ok.ubc.ca/ylucet/DS/DFS.html
https://visualgo.net/en/dfsbfs

Faculty Orientation Workshop, 22nd June to 26th June 2020, I²IT, Pune

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https://people.ok.ubc.ca/ylucet/DS/BFS.html

https://people.ok.ubc.ca/ylucet/DS/Kruskal.html

https://people.ok.ubc.ca/ylucet/DS/Prim.html

https://visualgo.net/training?diff=Medium&n=7&tl=0&module=dfsbfs

https://www.hackerearth.com/practice/algorithms/graphs/depth-first-search/visualize/

For coding practice:

https://www.hackerearth.com/problem/algorithm/beginners-task/

Online Test

https://www.indiabix.com/online-test/c-programming-test/

VIRTUAL LAB:

    1. Data Structures-I: https://ds1-iiith.vlabs.ac.in/data-structures-1/

    2. Data Structures -II: https://ds2-iiith.vlabs.ac.in/data-structures-2/

    3. Data Structures Lab: http://cse01-iiith.vlabs.ac.in/

    4. Computer Programming Lab: http://cse02-iiith.vlabs.ac.in/