CS 5633: Analysis of Algorithms

Exam 2, Practice Problems

Page and problem numbers are with respect to the 3rd edition of our text book.

- Sorting

  - Page 193: 8.1-1
  - Page 196: 8.2-1,2,3
  - Pages 199-200: 8.3-1,2,3,4
  - Page 206: 8-2,3

- Order Statistics

  - Pages 219-220: 9.2-3,4
  - Pages 223-225: 9.3-5,7,8 and 9-1,2

- Red-Black Trees

  - Page 311: 13.1-1,2,3,4,5,6,7
  - Page 313: 13.2-1,3,4
  - Page 322: 13.3-1,2,3,5

- B-Trees

  - Page 490: 18.1-1,2,3,4,5
  - Page 497: 18.2-1,2,3,6

- Augmenting Data Structures

  - Page 344: 14.1-1,2,3,4,5
  - Page 347: 14.2-1,2,3
  - Pages 353: 14.3-3,5

- Range Trees

  - Not covered in text. Be sure to know how to build a 1D range tree and how to search a range tree.

- Dynamic Programming

  - Page 389: 15.3-2,5
  - Page 396: 15.4-1,2,3,4,5
  - Page 406: 15-3,6