

# Review Session

Please fill our course  
evaluations!

# Next Week

- Monday: No class
  - My Office hours Canceled
- Tuesday: Bounds on what a computer can do
- Wednesday: Machine Learning
- Thursday: Wrap up

# Exam Topics

- Cumulative, but emphasis on topics since the first midterm:
  - Pointers, Pointers-by-reference
  - Linked Lists
    - create, destroy, traversal, insert, remove, Big-O runtime
  - Dynamic Arrays
    - create, destroy, growing, Big-O runtime
  - Binary Search Trees
    - create, destroy, search, Big-O runtime
  - Tries
    - create, destroy, search, add, remove, Big-O runtime

# Exam Topics

- Cumulative, but emphasis on topics since the first midterm:
  - Hashing
    - good, bad, using a hash function, Big-O runtime
  - Implementing Queue, Stack, Vector, Set, HashMap, Lexicon
  - Graphs
    - BFS, DFS
    - No MST, Dijkstra's or A\*

# Exam Topics

- Stuff that's likely to come up from the first half of the quarter:
  - Big-O Runtime
    - Worst case vs. Best Case vs. Average Case
    - $O(n)$ ,  $O(n^2)$ ,  $O(\log n)$
  - Exhaustive Recursion
    - subsets, permutations, combinations

Let's do some practice problems