

# Review: Search

- Linear Search:

<https://yongdanielliang.github.io/animation/web/LinearSearchNew.html>

- Binary Search:

<https://yongdanielliang.github.io/animation/web/BinarySearchNew.html>

# Binary Search Tree

- A binary tree where every node's left subtree has values less than the node's value, and every right subtree has values greater.
- A new node is added as a leaf.
- Check out this animation:
  - <https://yongdanielliang.github.io/animation/web/BST.html>

# Remove node algorithm

- Find element
  - If it is a leaf just delete it
  - If it has one child adjust the parent to point to the child (thus bypassing the node)
  - If it has two children
    - Replace data with the smallest data of the right subtree (or largest in left subtree)
    - Recursively delete the node which now needs to be removed