

## Outline for November 28, 2023

**Reading:** *none*

**Assignments:** Homework 4, due November 29, 2023  
Homework 5/Project, December 15, 2023

---

---

### 1. Searching

- (a) Search unordered list [*linsearch-u.py*]
- (b) Search ordered list, naive way [*linsearch-o.py*]
- (c) Search ordered list, smarter way [*binsearch-1.py*]
- (d) Recursive [*binsearch-2.py*]
  - i. Base case:  $high < low$ , return failure; word is `list[mid]`, return `mid`
  - ii. Recursive part: if `word < list[mid]`, search `word[low..mid-1]`; if `word > list[mid]`, search `word[mid+1..high]`