20.181 Lecture 6

Exams and HWs

- In-class midterm on 10/11

  studying for the exam:
  don't memorize lecture notes,
  more important to be able to work through the problems
  understand all the homeworks and you'll be prepared

Homeworks coming up

- HW5: Due next wednesday

  downPass, maximum likelihood

- HW6:

  search tree space

Up Pass

- If we know what the best answer is at the root- all of the other internal nodes aren't necessarily the best guess. We need an upPass algorithm that passes information from the root, back up to the leaves.

- For this example, we are dealing with **one** column of the sequence alignment. In this simple example, we compute one possible set of internal states (but we learned that this doesn't cover all possible states - see lecture 7 for details):

```
def upPass(tree,parent):
      if tree is a leaf: #(stop)
      return
      i = parent <intersect> downpass
      if i = None:
      data = i <union> downpass
      upPass(left,data)
      upPass(right,data)
```