Four Semesters of Computer Science in Six Hours

**Code Basics**

Favor readability over speed. Don’t be clever unless you HAVE to be.

**Big O**

Calculating the time it takes to make calculations based on an order of magnitude

Finding Big O

**Types of Big O**

*O(1)*

A basic function – Parser steps inside the code, does calculations, then exits.

*O(n^x)*

X typically is represented by the number of ‘for’ loops in a function. Usually based on code that iterates through inputs.

*O(log n )*

**Recursion**

When you define something in terms of itself. Use a function to define itself.

e.g. Each level of a recursive call can maintain its own state.

Can be dangerous where it will crash a computer

Recursion Example

Write your base case, the case where the recursion halts itself