Journal Entry #1

Jessica Morton (morjes14)  
October 4, 2013

I found the Python programming to be the most interesting and fun during this first week of the CSF program. Learning to write my first Python program was the most interesting part of this week. Something I learned about while programming in Python was the difference between ‘**import hw1\_test’** and ‘**from hw1\_test import \***’. The ‘**from hw1\_test import \***’ imports everything from the hw1\_test module so that you can use everything without having to type ‘hw1\_test.variable’. And the ‘**import hw1\_test**’ just gives you access to hw1\_test so that you can use the variables within it by typing ‘hw1\_test.variable’.

The difference between ‘**import x**’ and ‘**from x import \***’ was very confusing to me at first, but I had a friend explain most of it to me and now it makes more sense. I have a good idea of what the difference is between the two, but I would still like to have it clarified next week.

The three threads of CSF (programming, digital logic, discrete math) produce the basis of a computer and its software. Starting with discrete math which provides the math part of a computer system, then digital logic where you can create the electronics using the math, and finally the programming which creates the software that runs on the electronics that were built using digital logic and discrete math. In the discrete math thread, we’ll learn how to do discrete math and how math relates to programming and digital logic. Honestly, I don’t know as much about discrete math and how it’s used in each of the other threads. For digital logic, we’ll learn about Boolean, binary, and hex data. We’ll also learn how to build a very simple computer using circuit design. In programming, we’ll learn how to program using Python.

* **Programming:** Software Engineer, Programmer, Architect = Someone who designs and writes the software that a computer uses.
* **Digital Logic:** Logic Design Engineer, Component Design Engineer = Someone who designs the electronic components, circuitry, and chip layout and circuit design.
* **Discrete Math:** Mathematician, Architect, Logic Design Engineer, Component Design Engineer, Programmer, Software Engineer = Most of these jobs use discrete math.

I’m not sure exactly how discrete math is used in different jobs. It seems like someone who designs electronics, computer chips, and software would use discrete math a lot. Discrete math is probably in almost everything that has to do with computers.