Musings of a Distracted Writer

*mkdir lp1/cd lp1 /git init/touch rough\_draft.docx/git add ./git commit –m ‘first commit’*

*Penguin: This idea is a bit nutty.*

*Distracted Author (DA): So?*

*Penguin: Wouldn’t you rather take a nice safe route lots of outlines and neat sections*

*DA: Eh, I have chance to write in a unique style, it’s a fun challenge*

*Penguin: You and your challenges, fine, but if you fail don’t see I didn’t warn you*

And we are off. Before you ask, no, I did not accidently paste in junk to the top of the document, it will be explained shortly. I have always suffered when it came to writing, I suffer from a moderate to severe case of ADHD. My attention is constantly wandering which leads to my papers being jumpy and poorly organized. Complex relations between seemingly meaningless information are constantly rattling inside my skull, so a paper that is all connected to me may look like the ravings of a madman to you. Thankfully what is a crutch in writing turned out to be a huge boon in programming. I am able to see connections and complex interactions with ease. With that being said I am going to attempt to write this paper like I would a coding a file.

*Penguin: Really a paragraph in and the reader doesn’t know that the top line is a series*

*of commands to initialize a project and version control it with ease?*

*DA: I guess they do now*

*Penguin: and what about me?*

*DA: I should probably cover that before they think I’m totally mad.*

*Penguin: Yeah, you should…*

Now that the first line of nonsense has some context to it you are probably wondering why the author is talking to a penguin. Well in programming there is something called rubber duck coding. Rubber duck coding is when a programmer tells his problems to a rubber duck in the hopes that explaining it aloud will lead him to the solution. I am a big proponent of this method but have never had a rubber duck, instead I have a stuffed penguin from the Boson Aquarium named Steve. Those conversations are what I am saying to him as I sit at my desk and type out this paper. I am hoping that by giving you a look inside my thought process any jumpiness or seemingly random connections in the paper will be better understood. In addition, I will be interspersing the various commands I used to version control this paper with short explanations of what they are doing.

*Penguin: Boohoo poor you, I seem to remember this being about how different universities figure your major in order to make larger conclusions about how your major is figured and what values it promotes. Not your life’s story and boring methods*

*DA: …… I may have forgotten about that temporarily thanks for the reminder*

*Penguin: Go take your ADD medication I don’t want to be here all night listening to you groan about your life.*

*DA: Alright, but try to be a bit more pleasant for our reader. Or I can let the neighbors husky play fetch with you.*

*Penguin: …...*

*Git add ./git commit –m ‘Intro done’ (this command is saving everything to this point*)

~~Now that I have established that I am not totally mad let’s get down to business.~~

*~~Penguin: You don’t have time to watch Mulan~~*

*~~DA: Fine but the song is going on repeat for the next half hour~~*

*~~Penguin:~~* ***~~sigh~~***

*Git add ./git commit –m ‘mid paragraph interrupt’*

*Git reset head~/git stash/git commit –m ‘removed paragraph interrupt’(this command in practice would reset the document to the previous commit command, but I have left it in as an example and will continue as if it was not here represented with strikethrough)*

Now that I have established that I am not totally mad let’s get down to business. The field of computer science went from obscurity to headlines between 2000 and now. The causes are numerous and widespread. There was the popularity of the IPhone, smart watches, smart homes, smart cars, self-driving cars, and fears of cyber terrorism just to name a few. With this boom has come a scramble from universities to create the best computer science programs they can for their current and potential students. The relative newness of this major has caused universities to figure it in diverse ways, each attempting to enshrine certain values of computer science over others.

*Git add ./git commit –m ‘I am tired so last commit for the day Goodnight Steve’*

The first place that we can look to compare these two institutions is their web pages for their respective computer science based programs. When we go to the Northeastern webpage for undergraduates in the CCIS program we are greeted with a very clean looking web page. At the top it outlines the various classes involved in obtaining a CCIS major followed by a picture of a young women working on her computer. Below that there a few brief words about the co-op experience. Finally there is a side panel that shows how CCIS is applicable to everyone and how even if you do not major in Computer Science there are lots of courses available to you. To me this entire web page is a fascinating artifact.

Northeastern is figuring computer science to be hip and new age. They are enshrining its popularity, intrigue, and making the major itself approachable to people of varying levels of technological fluency. Even in their intro they discuss how the program covers “fundamentals”. A calm word implying the courses aren’t overly complex and those new to CS will not be in over their heads. The side panels emphasizes that computer science is applicable anywhere and those who major in it will be able to apply their skills anywhere they go after college. This site seems to be built for the sole purpose of attracting new applicants. I could not find a page with more detailed information about Northeasterns Computer Science department.

*DA: Should I talk about just how non-fundamental the first CS courses are, this feels like blatant pandering and misrepresentation. Those courses have 40% drop rates.*

*Penguin: Not here you need to talk about MIT’s site now save it for later*

*DA: Alright but don’t let me forget about it*

*Penguin: If it really means that much to you, fine.*

MIT’s site is a far cry from Northeastern and shows us a radically different figuring of Computer Science. For full transparency I want to state that I am using MIT’s Electrical Engineering and Computer Science major webpage as an artifact. MIT does not have a standalone Computer Science program, and this was the closest thing to it. MIT’s site for their undergraduate EECS crams as much information into the home page as possible. When you read this blurb about the program it brings on intensely different feelings than Northeasterns site. There are two lines that stood out to me on this homepage.

“World-renowned for both rigor and innovation, EECS is the largest undergraduate program at MIT”, is a strong sentence located at the very beginning of the site and makes two things clear. First this is not a bunch of basic courses that everyone will be able to get through. Second if you can make it through a rigorous course load you will come out the other side with an education second to none. The second line is, “Starting salaries for students with bachelor’s degrees average above $90,000”. What drew my interest here was the contrast to Northeasterns site. This sentence is right in your face saying that if money is a concern, a computer science degree will alleviate that. Many universities including Northeastern would never promote how much one degree makes in fear of making those taking others feel less significant, MIT is taking a stand and saying this major has huge potential to make you large amounts of money. I believe that when it comes to computer science MIT enshrines its characteristic of being difficult, and complex but at the same time extremely rewarding intellectually and monetarily.

*DA: That paragraph is pretty rough isn’t it.*

*Penguin: Not your best, those “first, second” sentence lists feel wrong*

*DA: I definitely have no flow in it either*

*Penguin: What about that chart you saw in a reading*

*DA: Maybe, let’s revisit this after the rough draft*

Now that I have told you how Northeastern and MIT figure computer science and its associated values I think it would valuable to see how each university represents computer science outside of an academic context. More specifically how these universities who have great pride in their computer science programs put that computer science knowledge to use themselves. Clearly Northeastern has put its expertise to use to create a nice CCIS page and a good outward facing website in general. Had I not attended the school that may be all I have to say, but all it takes is one look at myNEU to undermine Northeasterns program. The site looks like it was built in the 90’s, is not mobile friendly in the least, does not work on chrome, and may or may not be working at any given time. Regardless of claims made how can any self-respecting university offer a computer science program when its own internal website has been in shambles for years?

Leaving the disaster that is myNEU we can take a look at how MIT puts computer science to use. Their outward facing site is a bit less modern than Northeasterns and the organization on it is lacking but it gets the point across well enough. Now to be fair to Northeastern I have no idea how the internal site looks it may well be in the same shambles that Northeastern is. However even if it was there is a way they have put technology to use that makes up for any short comings. For years MIT has recorded lectures, uploaded assignments, and digitized tests from the majority of their majors to put online. These courses are made available not just to their enrolled student body, but to the entire public for free. This is a massive undertaking with no monetary pay back for them. In doing this they are figuring computer science to be a use for social good, a tool to share knowledge with any who seek it.

*DA: I feel like I may be doing that “grass is greener thing with MIT”. But I just think what they bring to the table is such a strong figuring that aligns with my own*

*Penguin: It may be worth it to tell everyone that both of them place a high regard on interdisciplinary practices with computer science. Both sites feature prominent news articles and graphics showing how much they care about computer science helping other majors*

*DA: That’s a good point, but you kind of just did.*

*Penguin: I know, you owe me one.*

*DA: Alright I won’t tell them about how rough the first few classes where it may have changed and I don’t want to scare anyone off of a major that I love*

*Penguin: Alright were even for now*

Reviewing these two schools opposing values and ways of figuring my major has really been self-reflective. I find I am drawn to values that reflect the struggle I have gone through to get where I am in computer science. I am also drawn to the figuring of computer science to be tough but incredibly rewarding if you stick with it. Regardless of my feelings I am glad I chose these two schools to compare as I believe the stark contrasts are an artifact in and of themselves. Computer science as a major has existed for a blink of the eye when compared to institutions like English, The Arts, and Philosophy. Because of this it is really hard to pin down how computer science is figured by the larger world and what values it really expresses to those looking in from the outside. I believe it is actually a mixing of both Northeastern and MITs figuring. Computer science covers such a broad field so interwoven with society that it can exist in two contrasting figuring’s at once. On one side there is the trendy and popular computer science. The one that makes iPhones, flappy bird, and smart watches. On the other there is the intense rigor of designing automatic stock trading software, better medical equipment, and the software that keeps planes in the sky. How computer science is figured will come down to each and every persons individual experience with it. For Steve the Penguin and I it will continue to be figured in a frustrating love hate relationship. Where the work can be grueling and frustrating for days on end, but the feeling of success makes it worth every second and then some.

*DA: Alright I’m done, still confident you are going to be saying I told you so?*

*Penguin: I won’t have to; your peer reviewer will do it for me.*

*DA: Ha Ha, funny, hope you enjoyed the break from tech talk because I’m stuck on a piece of code I need your help with.*

*Penguin: Finally. Watching you struggle through this paper, narrowly avoiding a complete wreck of end result was fun and all but I’ve missed all our crazy tech talk banter that only CS majors in their last year would get.*

*DA: That’s not very transdisciplinary of you.*

*Penguin: ……. Open the code or I’m going to let you suffer with that piece of code for the next day.*

*DA: Alright! Let’s not be hasty. Thanks for reading, and I hope you have enjoyed.*

*Git add ./git commit –m/git push*

*DA: PSST…. DOWN HERE. While Steve is looking at that code feel free to take a look at this link. It shows my real time commits to this paper in git.*