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Programming Assignment #2 Reflection

One issue I consistently struggled with was when manipulating the pixels in a 2-dimensional paradigm. Though I maintained the PPM image programmatically with a single dimensional vector of pixels utilizing a Pixel class I created, certain image effects required the data to be structured or at least conceptually structured 2-dimensionally in columns and rows. These effects, pixelate, blur, and flip 90, tested my for looping abilities. I realized that I had several edge cases to account for, where I needed to make sure that I was never going out of range of my vector. I started with no conditional statements and simply tested my code and added checks until all cases ran correctly and with no out of range errors.

A smaller issue I faced involved the pixelate image effect. I struggled to understand the PA instructions which led to me initially designing a slightly different implementation of the pixelate effect. PA2.docx instructs, “Make all pixels adjacent to P in a DxD block the same as P.” However, this is not truly what is required based on the image given and the example pixel matrices. The examples use the algorithm, “Make all pixels adjacently forward (vertically and horizontally) to P in a DxD block the same as P.” My algorithm worked with true matrix adjacency and pixelated forwards, backwards, up, and down around the reference whereas the algorithm we were supposed to use was slightly simpler in that it defined matrix adjacency as only pixelating forwards and down around the reference pixel. I would suggest switching up the wording on the pixelate instructions to clarify.

I took Data Structures two and a half years ago, with Professor Adam Carter in his first semester at HSU. Looking back at my code for this very assignment from 2 years ago, I was simultaneously grossed out by my old, poorly written program while also thoroughly pleased with the progress I have made as thinker and a programmer. Reading through my old Post Mortem, I remembered how helpless I had felt the first time through. I am happy to now have the confidence to feel like in most any situation, given the right time and resources, I can find a solution to any problem while embracing the struggle as a learning opportunity instead of a personal/technical deficiency. I have been greatly inspired to strive to do better by Professor Adam Carter and the comparison between my abilities on this assignment from 2 years ago to today serve as a rewarding reminder of my efforts.