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ISM 1

29 October 2021

Research Assessment #8

Date: October 29, 2021

Subject: An introduction to computer visión and how it works

MLA citation(s):

Babich, Nick. “What Is Computer Vision & How Does It Work? an Introduction: Adobe XD Ideas.” *What Is Computer Vision & How Does It Work? An Introduction*, Adobe, 28 July 2020, https://xd.adobe.com/ideas/principles/emerging-technology/what-is-computer-vision-how-does-it-work/.

Assessment:

Since my past few research assessments as well as some of my past blogs, I have really developed an interest in learning about natural language processing and computer visión through deep learning. Thus, I focused on computer visión for this research assessment and found the article about computer visión, “What Is Computer Vision & How Does It Work? an Introduction: Adobe XD Ideas.” This article helped me learn about the practical examples, processes of computer visión and also connected with some of my previous underlying knowledge about computer visión and deep learning.

After reading the article and understanding the information about computer visión and some of the examples, I was able to gain a better understanding on what I can create for my

original work and computer visión has interested me to explore its back-end or the programming side. I was able to learn about the applications of computer visión such as the organization of photos by tagging different places and people, use of drones and image processing of plantations in agriculture, use of disease diagnosis technology in medicine, use of image recognition technology for facial recognition, and the use of object detection for augmented reality and self-driving cars (Babich pp. 8-13). With this knowledge, I have obtained a few practical examples that have inspired me on what I can do for my original work and even my final product. Now, I want to deep dive into the mathematical sense and the programming sense that computer visión requires to be implemented as I have finally learned about some of its practical examples and processes combined with my previous knowledge of a neural network.

This also connects with my current knowledge of computer visión as I already know that computer visión relies on the analysis on each individual pixel of an image and use the combination of red, blue, and green color values for data input. It also connected to my knowledge of the concept of neural networks that actually implement computer visión algorithms as they use brain-like neurons to take raw nonlinear input data and convert it into more analytical linear data to make accurate predictions. Furthermore, this helped me make connections and think deeper on what I want to really create for some of my mini-projects in my original work.

I continue to strive to learn to continue to explore the field of natural language processing and computer visión as this has not only fueled my interest but I want to start the back-end side now as I can start a new course about computer visión specifically and really get into the development of a model that creates computer visión technology. With this basic underlying knowledge about computer visión, I am honing on this particular field of study to learn about and a much specific subset of neural networks. Now I know I need to continue to learn about the

practical implementations of computer visión. This will allow me to achieve my goal of successfully implementing machine learning, more specifically deep learning and computer visión into real life applications in the future.