Interview Assessment #3

Name of Professional: Yilun Chen

Profession/Title: Computer Vision Engineer

Business/Company name: Walmart Global

Date of Interview: 11/10/21

Assessment:

This interview was incredibly helpful for me, not only because of the professional lessons that I learned but also because of the sheer amount of technical knowledge that I learned. Mr. Chen helped give me many new resources so that I can learn more about the field, and I'm really excited to learn more.

In the interview, we talked about Mr. Chen's transition from academia to the corporate world. He did research in Statistics as a researcher at the University of Wisconsin-Madison and shifted to the corporate world as a computer vision engineer at Walmart. Through our discussion, I learned that it is possible to actually work in a job that you didn't study for through secondary education. By working in the corporate world, you may gain responsibilities and skill sets that you weren't prepared for in your degree, so learning quickly is a very important element of being successful in that kind of environment. This is especially important so that a person in this situation can catch up with their colleagues and ensure that they can continue to progress in the company.

Through my discussion with Mr. Chen, I realized that in order for innovation to occur, there are two main elements that need to be present. The first is a vast understanding of the subject matter. Mr. Chen was clearly very knowledgeable about the field, which would definitely help him find creative solutions to whatever tasks he was responsible for. This is because without a strong knowledge of the task, it is very difficult to understand how to approach a problem and what options are available for doing so. In order to increase my own understanding of the field, Mr. Chen was able to provide me with blogs such as medium.com and

towarddatascience, which he said were really helpful for entry-level people in the field. The second element is the freedom to explore and fail. This was something that Mr. Chen heavily stressed, and would have a huge impact on the work environment. As a result, I need to find a place where I can tackle problems freely with the necessity to succeed immediately. Since, in Mr. Chen's words, the innovative process leads to failure 9 out of 10 times, I've found that I need the freedom to fail so that I can learn from my mistakes and use those experiences to find better solutions through exploration.

Mr. Chen was also able to provide me with a lot of new information about technologies and best-practices for working on computer vision projects. I learned that there were more areas of computer vision than I had realized, with some being object detection, object segmentation, OCR, and super-resolution being a few of them. He also told me to research the GAN technology, which I thought was really interesting because it could combine images to generate a new one based on the inputs. Using this knowledge, I will have a greater ability to leverage existing technologies and incorporate them into my projects as necessary. This is really important because it gives me options when I'm creating solutions and can give me further areas of research so that my knowledge doesn't stagnate.

Surprisingly, I learned that traditional CV methods, which mostly rely on statistics rather than deep learning, were still commonly used in computer vision applications. This is because they help take a lot of the load and complexity off of the computer, which can actually make the program faster and more efficient even if it doesn't use deep learning elements. This means that it is of even greater importance that I learn about some of the statistics elements behind computer vision so that I can incorporate them into my own projects.

A tip that I learned that will directly help me with my original work and final product is that people often fall into the trap of having too many parameters in their programs. As a result, they run into problems with dimensionality and readability of the model, which may make it difficult to figure out whether the model is correctly identifying the actual target object or a background or

other element that is commonly related to it. I will need to account for this in any solutions or models that I propose.

Overall, this interview was very informative and I truly enjoyed it. I learned so much about the field of computer vision and life as a professional working in it, and I'm excited to put the knowledge that I gained to good use!