

Mr. Speice

Independent Study Mentorship 2A

6 November 2019

A Deeper Dive into a Neural Network

Assessment 8 - Interview Assessment

Name of Professional: Tim Cogan

Title: Software Developer

Company: ams AG

Date of Interview: 6 November 2019

Works Cited:

Tim Cogan, Informational Interview. 6 Nov. 2019

Assessment:

Understanding the inner working of the brain is a rather difficult task for the average human. There are many parts that work concurrently with one another which simply serves to increase the complexity of the brain. On this same token, understanding a computer-based brain, also known as a neural network, is just as difficult to understand. During the interview with Mr. Tim Cogan, I was able to take a deeper look into this concept of a neural network and get a better understanding of this complex idea.

To initiate the interview, we discussed the merits and demerits of the role of a software developer. Similar to previous interviews, he discussed much of the same merits; however, when discussing the demerits he provided a completely new perspective: the pressure of others in his work through. In addressing this, he was able to illustrate the social pressures rather than the technical pressures. This information is essential to consider going forward because the social

aspect of the job is something that was not heavily considered. Additionally, in a way, this demerit serves as a warning for the future for needing to get better at coping with others whether it be clients or coworkers. Going forward, this information solely serves to help me improve social relations with others in order to ensure an overall positive experience in the future as a software developer.

To continue the conversation, we finally talked about the core technical focus for the interview: the backend deep neural networks and the configuration process. Knowing the backend will be immensely beneficial in the near future to develop the original work. This is because by having a solid understanding of the conceptual aspect of neural networks, using them to their full potential will be much easier. Furthermore, knowing the backend provides merits for during presentation days as it will be easier to explain in layman's terms what exactly a neural network is. The configuration process also has its merits for the original work. While working on the original work, there was a general confusion on how to get started with neural networks. However, now with the increased knowledge in the configuration process, there is a greater clarity in exactly where to start along with specifications that apply only to the original work. Collectively speaking, this increased clarity of the neural network concept serves to be a non-trivial part of the research phase and is the stepping stone to further research.

To conclude the conversation, we talked about ideal image processing conditions and the necessity for using these conditions. Grayscale processing is the most ideal condition to process images under because it saves immense amounts of computing power. This is important going forward because the laptop currently being used for the development of the original work does not have a graphics processing unit embedded and so saving computational power will allow for

the central processing unit to run smoother, improving the overall performance of the project.

Not only should the webcam image processing be considered but also the dataset image processing. The dataset should contain high clarity images for the best results when processing.

This is important to take note of because it will be a factor to consider when collecting images to create the dataset.

To conclude, this interview was immensely beneficial as a whole and marked the next stage in the research process. It served as the same foundational step that one may encounter such as that when transitioning from basic arithmetic to algebra. All things considered, the knowledge gained through the interview will likely be used beyond the ISM path and into my professional career.

[Interview Notes](#)