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TCSS 499 CSS undergraduate research

Prof. Eyhab Al-Masri

Peer evaluation

Last quarter, I took Prof. Eyhab’s database course and learned not only basic content of database but also expandability and structure of a more high-level system as well. Then I’m very interested in learning web service, cloud computing, and IoT. They can be connected and communicated with each other in a really interesting way. Because I installed a lot of smart home devices and use cloud as well, I want to do a decent project to learn more about them. Now here we are. I loved the way that Prof. Eyhab guide me thought this quarter. Instead of giving clear directions, he gave me more hints and available branches when I suggested some possible ways to design this Azure&IoT course. I think I did very well on designing the whole flow of the course and covered a lot of corner/failure cases during my research. I was shocked by the computing power existing in the cloud right now and the power can make dreams possible. We can now focus on developing more features of products and the cloud will take care of computing. Alexa, a smart voice assistant from Amazon, is simply just a speaker with a few extra circuits. Its language process and operating algorithm is coming from the AWS (Amazon web services).

Unfortunately, because of time consumption of my other class project, I didn’t have enough time to implement a machine learning model tutorial for the last few weeks, which is far more interesting than using an existing model to process images. Furthermore, I should revisit all materials to make the descriptions more precise and clearer if I have extra time.

From all the researches I did for Azure, I felt like switching to AWS is a good idea for the next step. Since we are only using free trial account, there are a lot of limitations. Azure also has a few internal implementation issues as well. Now, as AWS is growing really fast, we should do the same thing with AWS.

Overall, I learned a lot this quarter from my research. Started with only limited knowledge of IoT, now I’m able to utilize sensors and services from Azure to complete a full-stack project. To anyone who is also going to do research in IoT topic, I recommend them to think big and investigate as much as possible first, then pick a specific sub-topic and work on it. After that, you become an expert in that topic. It’s really easy for you to pick up other subtopics because most of them share same idea.

Now I’m definitely feeling confident about the Internet of Things and ready to learn more next quarter. I think I deserve a 4.0 for this course.