Journal report 25

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I continued to try to fix the server issue with dlib. I recompiled dlib with special flags to not use SSE4 instructions. Running the script doesn’t give the error anymore. However, the server still doesn’t recognize dlib installed. When I run python3 in the command line and import dlib, it’s fine. However, in the private log file, it shows “can’t find dlib”. I suspect this is because I used pip and “--user” flag and the script isn't run by my user, who has dlib installed. I need to talk to a sysadmin about the situation.

I pretty much ran out of ideas to improve my current version of my software. So I decided that I should try to use a neural network to see how it goes. I found a library called fast.ai and it seems fairly easy to use and it has a good course to go with it. I am planning to use the library and make a training set which I basically have a capture script. I can modify it to make the capture script to save a three channel image. After watching the tutorial, I really liked it. In the first video, it gives an example of transfer learning and code for it. It shows how to fine-tune a neural network, a common technique commonly used in computer vision. It also has a really nice dataset reading tool and augmentation tool. The example code is in a Jupyter notebook. One thing the speaker said I really like is that you should apply deep learning with domain-specific knowledge for innovation. The library seems to be simple to use and achieves the state of the art result. The fast.ai library is built on top of pytorch. I installed the libraries required and plan to start training next class to see the result.