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ITAI 1378

26 September 2025

Reflection Journal

Our main objective was to build a model that could take our input, distinguish between the two types of images we gave to it and produce results. The input being images of chihuahuas and blueberry muffins. We had to make its whole pipeline function in an efficient way where it could interpret the data/input we gave to it and use various amounts of techniques and methods to give us our results. We used matplotlib to plot our input and then we used PyTorch for the main framework of the model. PyTorch allowed us to build a neural network which we could use in the model in order to help it learn what exactly we meant for it to do. In this case we transformed our data/images into tensors for our model to understand what it's looking at. We also set many adjustments that we want to be made to the images/data such as make the image brighter, increase the contrast etc.. Once we have adjusted the parameters we trained our data and made sure to also validate our data will achieve the correct results in a real life scenario.

The major challenge was trying to get 100% but everything else made sense, you just have to ensure data moves to our other areas efficiently and correctly. I will say a lot more went into image classification than I had expected. The image transformation section was probably my favorite since that's where we could “adjust” the image to look more saturated, grayscale, enhanced, pixelated etc.. I used the train set to use image adjustments and then I used the

validation set to adjust image orientation. I could definitely see this being used in the medical aspect such as a medical bot that could advise you when doctors are out of office.

This was truly a fun and very interactive experience/assignment. I hope we get to learn more about how machines interpret the data we provide them. Playing around with : transformations, the loss function and learning rate/ optimizer, batch size and image size was a super fun activity which showed just how much detail goes into perfecting a certain model's training.