  Project report stage 2

Our project focus on image recognition, we aimed to use our machine-learning knowledge we learned from class to design an algorithm to classify authentic or fake brand sneakers (Nike, Adidas).

            There are plenty of apps doing this job. Such as StockX, SNKRS, Goat, etc. All of them are using a primitive approach. Sneakers are shipped to their authenticators and viewed by them manually, which is very time consuming and ineffective. So, we come up with this idea to automate this process. It has both business and research value.

            This is not an easy task. We have many challenges. As we know existing classifiers such as: cat or dog, is this a hot dog? are primitive and easy to implement. Because of the difference between dog and cats are huge. And hotdogs are easy to spot too. But the difference between real or fake sneakers is subtle. It’s so subtle that even some experienced authenticators need to spend a lot of time to truly separate them and sometimes they fail to do so. This task is exciting and challenging.

            We are going to collect at least hundreds of photos (maybe thousands of photos at the end of the semester). Train our model and to classify them. We feed our model with both fake and authentic sneaker's photos. Seven photos for each pair of sneakers. We don’t know if we can achieve high accuracy at this point, as the project continues, we will see!