Final Assessment

Self Assessment

Over the course of this project I fulfilled different tasks. The way we approached the project was divided into three stages. First, we extracted the data, transformed it and saved it into json and csv files. Then, we performed the machine learning model and build a Flask application. Last, we built an HTML website that displayed the results of our analysis.

For the first stage I contributed with data extraction and cleaning. I worked on the branch named gabacaba and I made several attempts to acquire the information we needed. However, I found difficulty when it came to save the Crypto Punk image array into a dataframe. My colleague, Ignacio Guerra, was more successful in this task and we decided to utilize the data he had obtained.

For the second stage my teammates worked on the machine learning model while I worked on the Flask application. The biggest challenge was to connect the database with Flask. We ended up using Mongo DB and learned how to connect it with Flaks. I also was responsible for connecting flask with the HTML template.

For the third stage we worked together. We built and HTML website and supported each other when we found difficulties. We faced two difficulties during this stage. First, we needed to create a random Punk ID number between 0 to 10,000. Though we knew the code to create the random number, we needed pass this number to the database to gather all the information associated with it. Second, we needed to display the results on the HTML website, and it took us some time to understand that we needed to refresh the page with the information of the selected Punk ID. Thankfully we were able to overcome both challenges and finally built a successful website.

Team Assessment

I was very lucky to be working with talented and responsible teammates. I’m grateful for their support and effort over the course of the last four weeks of the bootcamp. Even during the holidays between Christmas and New Years they worked intensely on the project.

At first we aimed to predict the price of the CryptoPunks based on its characteristics. We were advised not to conduct this task and our first challenge as a group was to find a different project to work on. Ignacio was very keen on the subject and after careful researched he found a database we could work on. We therefore decided to predict the characteristics of the CryptoPunks images and learn a new skill (image processing).

After selecting the topic we coordinated approximately around 2 calls apart from out class time. We communicated via Slack and kept each other up to date with our last work and challenges. Something I appreciated was their transparency. We communicated openly about challenges or if we were running behind. This helped us support each other accordingly and move forward together as a group.

I believe something we would have done differently would be to follow the roles more closely. We felt more comfortable navigating this project by task and not so much by role. Which means that the ones who were more proficient in one area worked on it. This had its advantages but sometimes the work load was too big for one person. If we would have followed the roles more closely perhaps the work load would have been more equitable.

Summary of Project

For my Data Analytics Bootcamp I explored a collection of 10,000 digital assets known as CryptoPunks and built a Machine Learning model to predict some the attributes of each Crypto Punk image. The program used a Convolutional Neural Network (CNN) made up of several layers to determine the type of the CryptoPunk (Male, Female or Other) or whether it had glasses or not. The results were almost 100% accurate and were displayed on a HTML personalized website.