CMPG 313 (Artificial Intelligence) - Practical Assignment: Training a Machine Learning Model with Lobe.ai

37200690

Zubair Ameer

North West University

My experience with Lobe.ai was incredibly easy to set up, although watching the tutorial was absolutely necessary for a full understanding. After that, I quickly grasped the platform. I decided to tackle a more personal issue with this model, which was procrastination.

The data collection process:

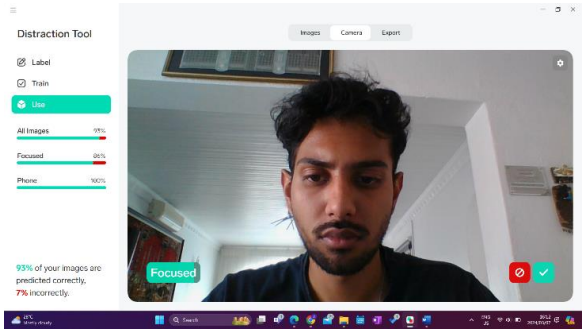
The data collection process involved uploading pictures through my webcam, which was straightforward. It captured multiple pictures of me and labelled them accordingly. However, I faced some difficulty when trying to upload existing images to the site, even with the simple drag-and-drop feature. Unfortunately, the tutorial only covered the use of the webcam.

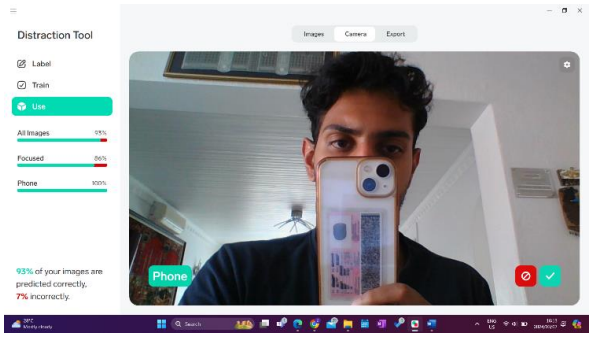
Lobe.ai informed me that a minimum of 5 images was needed, which proved sufficient for my case. While better performance was achieved with more images, the trade-off was longer training times.

Lobe.ai Experience:

The Lobe.ai experience itself was excellent. The setup presented a user-friendly interface, and the drag-and-drop functionality for images was seamless. The standout feature was the ease of testing the data afterward by indicating whether the predictions were correct or not.
I also discovered several impressive integrations, notably the capability to export the model for use in mobile applications.

However, there were limitations. I struggled to figure out how to train with existing images without resorting to watching a YouTube video. Naming each class posed another challenge, and since the tutorial wasn't accessible within the app, I couldn't resolve these issues during a power outage, leaving me feeling lost.





Learnings and applications:

While Lobe.ai presents a more aesthetically pleasing and user-friendly interface compared to Teachable Machine, the accuracy of the data results did not match the performance of Teachable Machine. Lobe.ai excels in simple image recognition, but Teachable Machine offers a broader spectrum of capabilities, including audio and pose recognition. Despite Lobe.ai's commendable feature of distinguishing between good and bad data, Teachable Machine seemed more adept at recognizing webcam images.

Recognizing the prevalence of procrastination among university students, I envision incorporating this model into an application designed to detect phone usage and provide timely reminders to stay focused. Such an app not only addresses my personal needs but also holds potential benefits for any student facing similar challenges in maintaining focus and productivity.