



University
of Regina

ARC Artificial Recognition of Cannabis



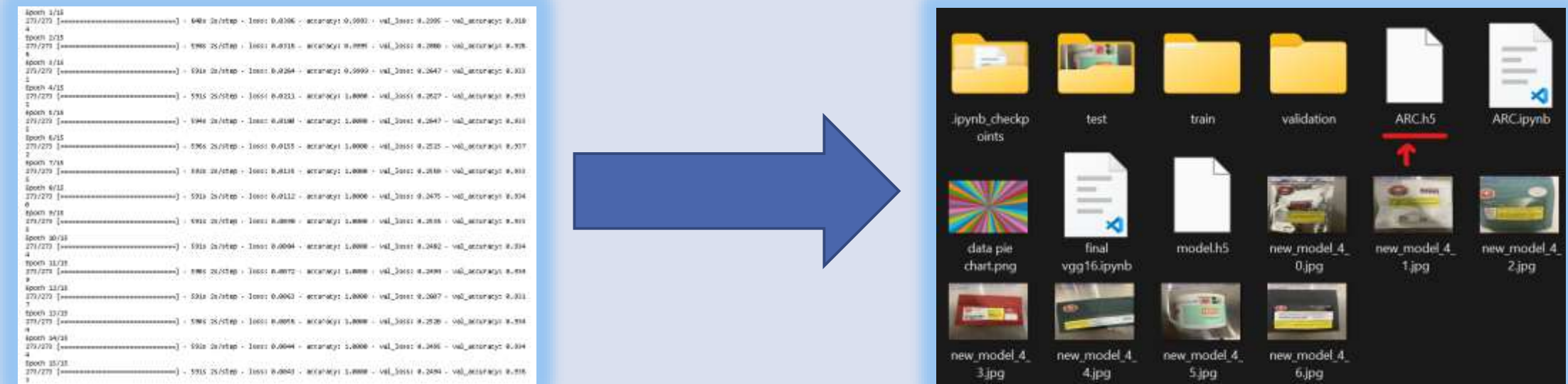
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Project Summary

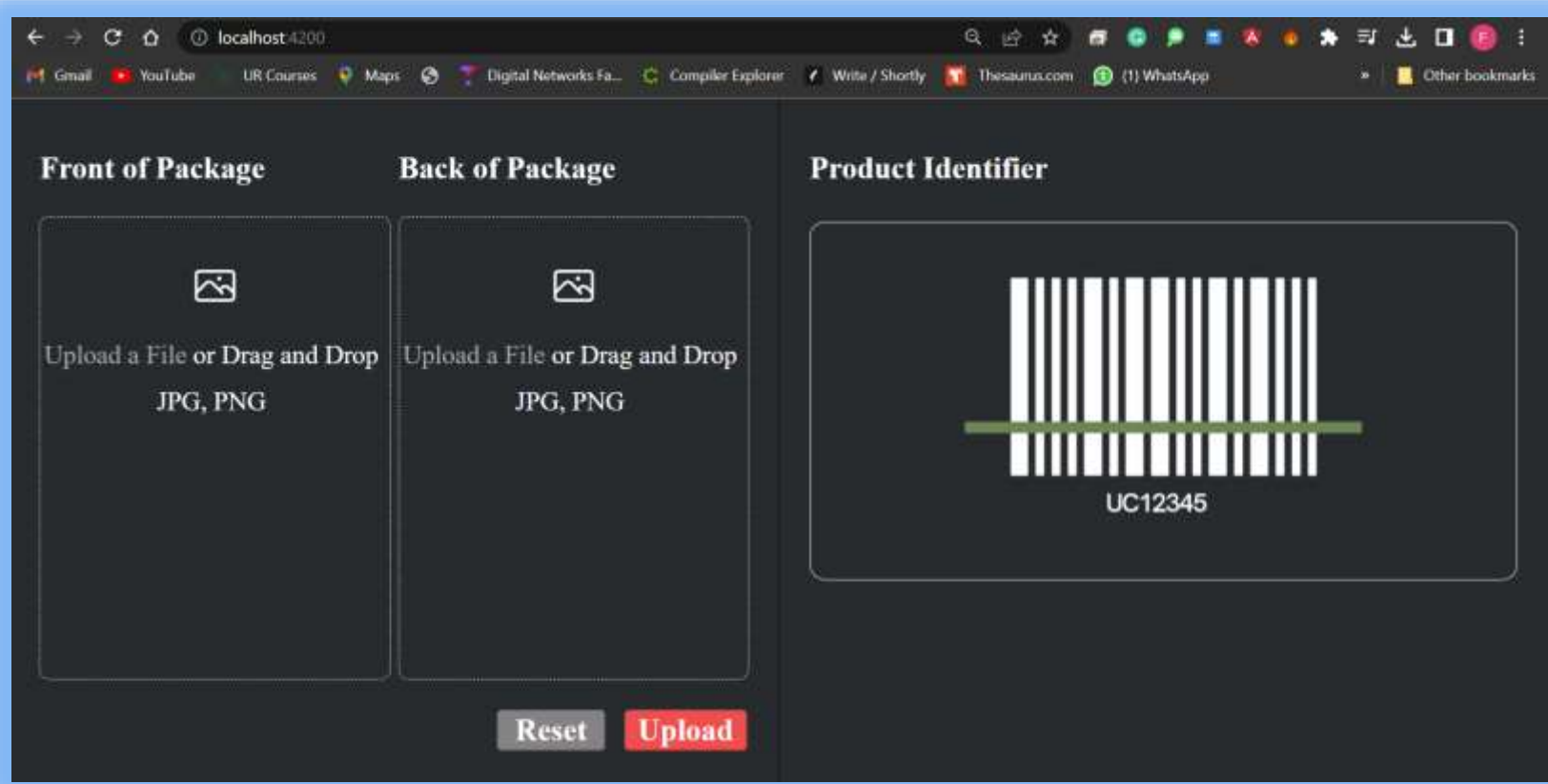
The project aims to develop a cannabis recognition system using neural network techniques. The project will involve preparing a dataset and using a model in an Angular app to perform the recognition task. The primary purpose of the app is to update the menu boards for BudScience, a company that deals in cannabis products. By implementing this recognition system, the menu boards can be updated accurately, saving time and money. It will also ensure that clients get the correct THC and CBD percentages in each sample. Overall, this project has the potential to revolutionize the cannabis industry by providing an efficient and accurate method of identifying different cannabis strains.

Approaches and Implementation

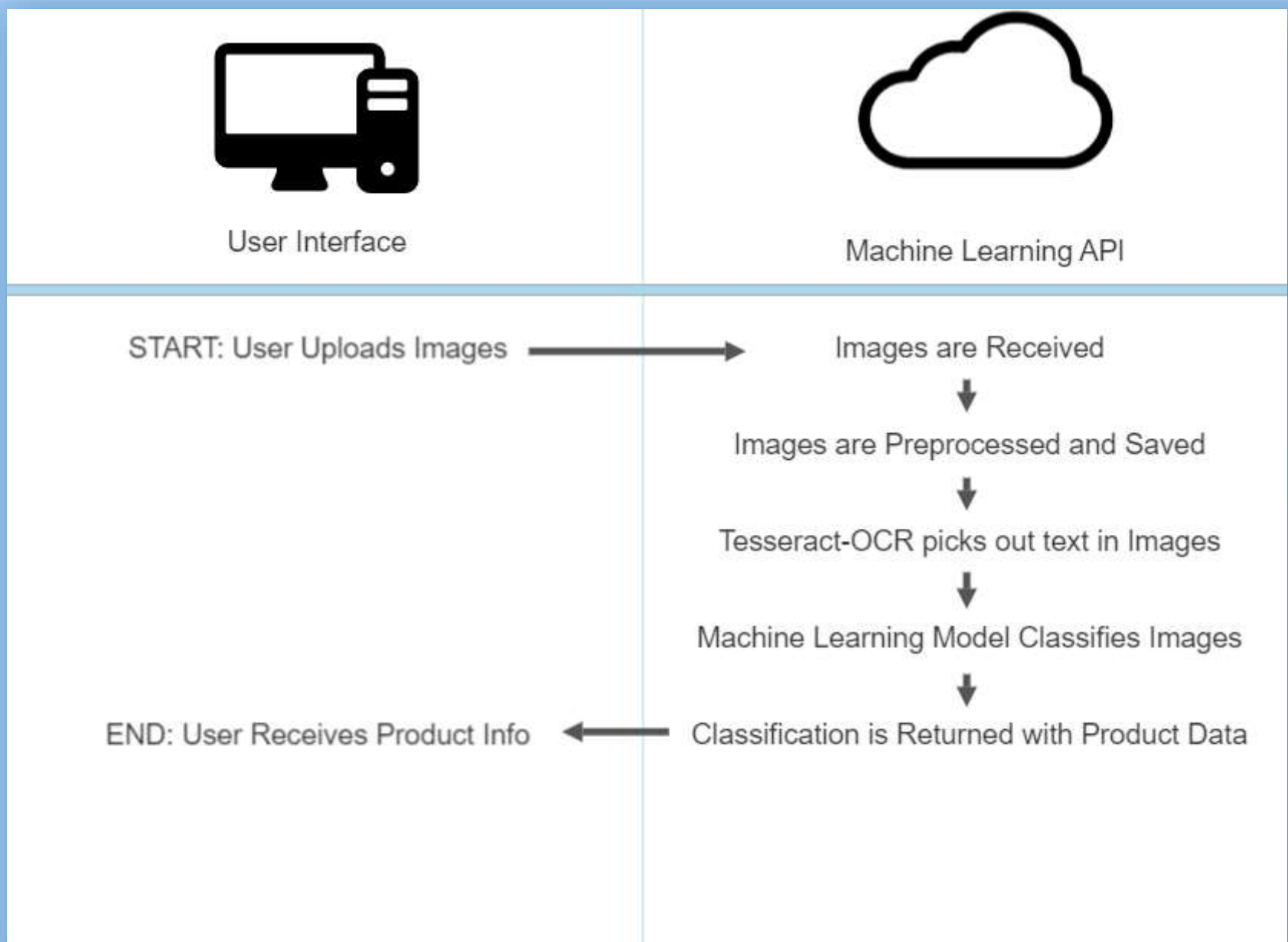
3- Third, training and saving the model



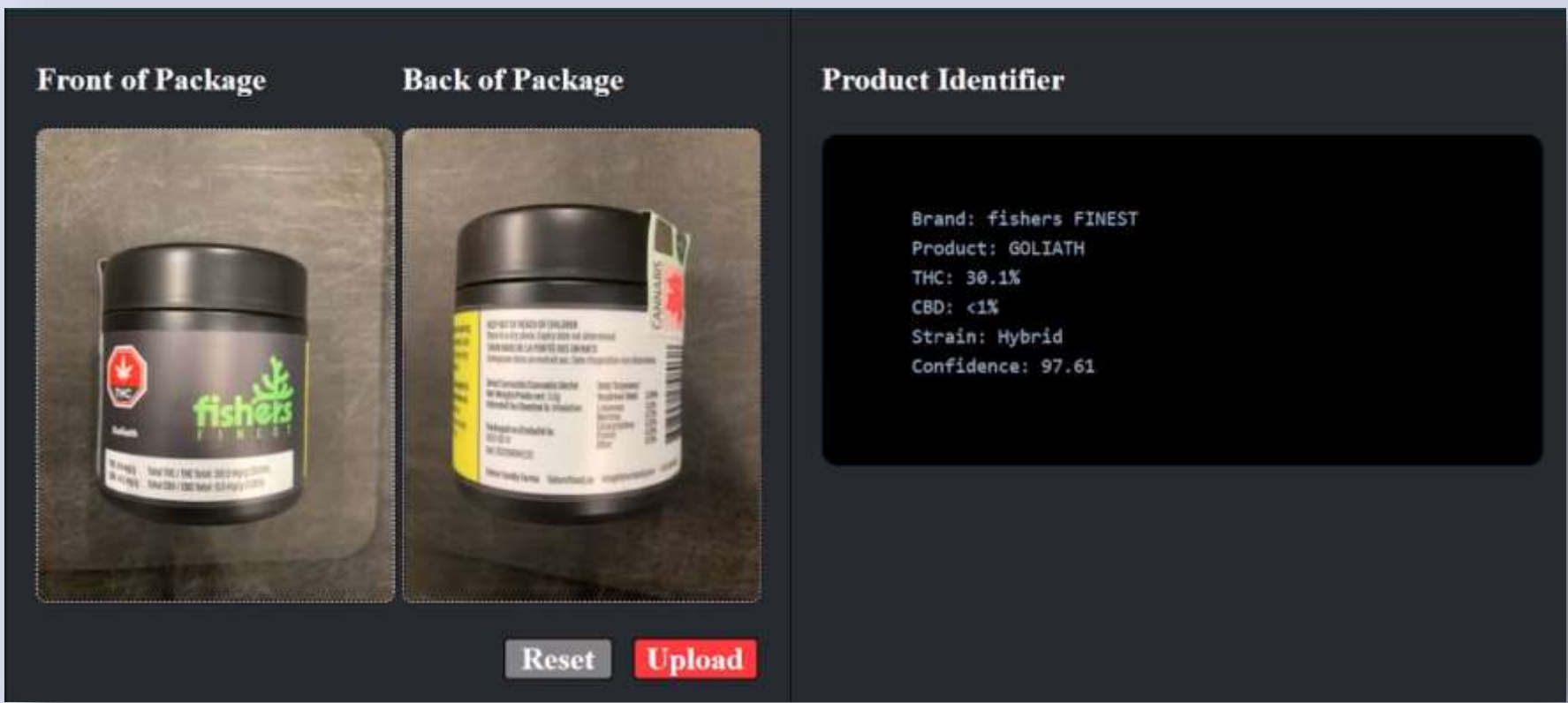
4- Finally, implementing Angular webapp to use the model we built to show the results



Project Flow Chart



Results



-The model accuracy and loss after training are “loss: 0.0043 - accuracy: 1.0000 - val_loss: 0.2494 - val_accuracy: 0.9363”

Conclusion and Future Work

In conclusion, this project successfully developed a highly efficient cannabis recognition system using neural network techniques. The system was able to work with a large dataset and achieve high levels of accuracy in identifying different cannabis strains based on their physical attributes. The system was also successfully integrated into an Angular web app, allowing BudScience to update its menu boards with accurate strain information in real time. The developed system saves time and money for BudScience and ensures that clients get the correct THC and CBD percentages in each sample. Overall, this project has the potential to revolutionize the cannabis industry by providing a reliable and accurate method of identifying different strains, thereby enhancing the customer experience and boosting business performance.

To learn more



Check out Our Repository

Acknowledgments

- Dr. Timothy Maciag
- Trevor Douglas
- Adam Tilson

Approaches and Implementation

1- First, Manually collected over 13,000 images from Farmer Jane Cannabis.



2- Second, presenting the dataset using a pie chart to check if the dataset are balanced or not. The below pie chart shows the percentage for each class with respect to the whole dataset.

