

Machine Learning - Mini-Project 4

In this Mini-Project, we will build and share machine learning models using Google's 'Teachable Machine.'

Learning Goals:

- Explore and build a meaningful Machine Learning Tool from a user perspective.
- Identify and demonstrate aspects of a meaningful machine learning project.
- Share and test your model with others in the class.
- Document your own process of learning to use the tool.
- Review and try out models from the class.

The Project:

Begin by visiting the project website <https://teachablemachine.withgoogle.com/>

And watch the intro video <https://www.youtube.com/watch?v=T2qQGqZxkD0&t=3s>

For this project you will make and share your own meaningful/non-trivial Why meaningful? It should not be a trivial model. It should have a purpose or clear goal - something more than "Does this person have a hand on their head?"

Example

Watch the Pottery demo videos in Moodle

And a current example of how this is currently being used in archaeology.

<https://www.sciencedaily.com/releases/2021/05/210517144704.htm>

Submit in Gradescope.

1. Use the Teachable machine website and picture from the web (or your own) to make a simple “Is this a dog or a human?” model just using images from the web. On this page (fill page) Describe your process of learning how to use the site/tool. How did you choose images? Tricky? Fun? Worked? Include the link to your model.

2. Decide on your own model to create and how you improved it. What makes your model non-trivial? Why did you choose it? It can be any of the three types from the site - Image, Audio, or Movement. Two page narrative here and on pages 3/4. You may include thumbnails of images.

3. Put the link to your model here on page 4:

Add the link to a shareable Google folder containing your training images/files.

Post a link to your model on Piazza and ask your classmates to try it out. Include a screenshot of your post and responses here on this page.

4. Go to Piazza and try out 3 of the models from your classmates. On the following pages, give a one page review of each (on pages 6/7/8 (may include thumbnails):

- Is the model non-trivial?
- What did you use to test it?
- How well does it work?
- Why is it a meaningful model?
- Does it do something that is hard for a human to do?
- What images did you use to test the other's models?

4A Model Review One:

Model Review Two:

Model Review Three: