Berrijam Jam 2024 Datasets

The following dataset is part of Berrijam Jam 2024 and released for use by participants of the Berrijam Jam 2024

### Competition Jam Details and FAQ are available at [berrijam.com/jam](http://berrijam.com/jam)

### IMPORTANT: We will provide the template code to teams where all members have accepted the terms and conditions on Friday, 29 March 2024. If you haven’t already accepted them, please accept them [here](https://forms.gle/uHzuR1gvGdbjEwZ38). Teams with outstanding T&C acceptance will NOT get access to submission guidelines and code templates.

# About the Datasets

Each of the three datasets should be considered independently and represent the common types of decision-making problems where AI & ML may be used. The code pipeline should take labels and training images for one dataset at a time to train a custom model specifically for that problem dataset. Each pipeline will be trained on the respective dataset separately and evaluated on images not part of the dataset.

## 1. Is Epic Intro

* **Goal:** Determine from a spectrogram image of the first 30 seconds of a song if the has an Epic feeling (Yes) or not (No).
* **Context**: Artists, editors and producers always look for that perfect sound to accompany the visuals or story they want to tell. Sifting through millions of songs is slow and time-consuming, especially if it is a brand-new submission from thousands of artists worldwide. What if we could determine the style of the music from the first 30 seconds of the audio? In this problem, are always looking to build a 2-class classifier that can classify the style of the song from the spectrogram image of the first 30 seconds of the audio track. To keep things simple, the goal is to distinguish between epic and no-epic. The dataset has examples of the mp3 songs and the corresponding spectrogram image. Note that you are NOT expected to generate spectrogram images from the song. The pipeline to train and predict should work only from the spectrogram images that we generate.
* **Difficulty**: Easy

## 2. Needs Respray

* **Goal**: Determine if the weeds in the pic are still alive and need respray (Yes) vs they are dead and don't need a respray (No).
* **Context**: Weed-killing chemicals are dangerous and expensive. They are also not 100% effective and often require a respray. If we wanted to build a robot to take care of weeding, we would need the robot’s vision system to have the ability to determine between weeds that are still alive and require re-spraying and not spray weeds that are already dead. This would reduce chemical use and lower the risk of poisoning and the cost of chemicals used. The dataset has examples of pavers around a home, taken at approximately the same height, including images that have live weeds in between the pavers, as well as weeds that are dead.
* **Difficulty**: Medium

## 3. Is Gen AI

* **Goal**: Determine if an image is generated by AI (Yes) or originally taken by my camera (No).
* **Context**: Generative AI tools enable people to create amazing artworks and express their creativity. However, they also expose a potential risk of manipulative misinformation. What if we could build an AI that could spot minor variations and quirks of images produced by generative AI, and distinguish it from pictures taken by a camera by a person? The dataset includes images from Avishkar’s travels, as well as images generated about the specific place using an undisclosed generative AI tool. The dataset is provided in pairs, and the paired images share the prefix. The pipeline should take in a single image and predict Yes or No, depending on if we think the image was generated by AI.
* **Difficulty**: Hard

# Notes about the Data

* Datasets 1 and 2 have 10 examples — 5 examples of Yes and 5 examples of No. Since dataset 3 is a more challenging problem, we have provided additional images.
* Each zip file contains a Readme.txt along with images and labels in a CSV file.
* Each image is scaled to the same resolution - 1200 x 900. Only dataset 3 can have portrait orientation for some images.
* The dataset is released only to be used as part of Berrijam Jam 2024. If you’d like to use it outside the competition, contact jam@berrijam.com.

# Got Questions?

1. Check the FAQ on [berrijam.com/jam](http://berrijam.com/jam) website - it may have already been asked and answered.
2. Email [jam@berrijam.com](mailto:jam@berrijam.com) with your question - note that if we feel it is general enough, the answer will also be added to the FAQ.
3. If you are part of COMP 9417, you can ask your lecturer or staff.