

Guidance for AI Image Recognition

Sprint 5

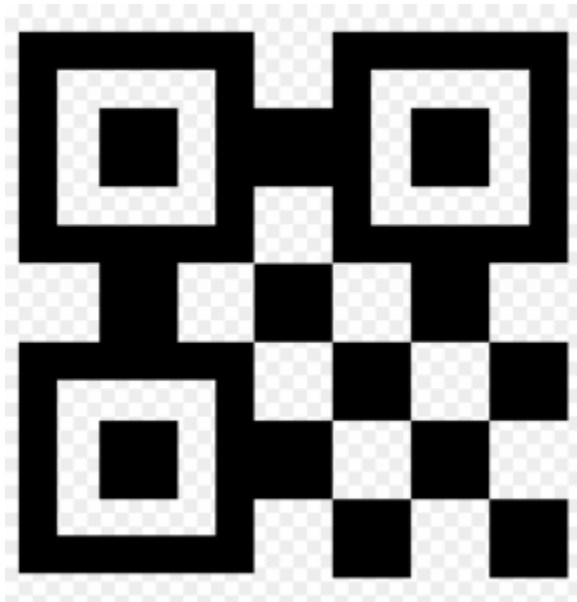
McKenzie King

Objective

The goal of this document is to compile all links, suggestions and other guidance given during the AI training process into one cohesive document.

General Plan

For our image recognition, we will be using a Haar Cascade. We chose this because it is fairly simple to train and use through OpenCV which we had planned to use for this project. Since Haar Cascades perform well with segmented areas of contrast, we are planning on using an image such as the following.



This process can be done either in Windows or Linux. If Windows is being used, I would personally recommend using Anaconda.

Links to Anaconda and OpenCV Conda Setup

<https://docs.anaconda.com/anaconda/install/windows/>

<https://anaconda.org/conda-forge/opencv>

Reference to Haar Cascade Explanation

<https://medium.com/analytics-vidhya/haar-cascades-explained-38210e57970d>

Reference to Haar Cascade Usage Through OpenCV

<https://pythonprogramming.net/haar-cascade-object-detection-python-opencv-tutorial/>

References to Haar Cascade Training Tutorials

<https://pythonprogramming.net/haar-cascade-object-detection-python-opencv-tutorial/>

<https://medium.com/@eltronicsvilla17/haar-cascade-6c6eb4f0c2bf>

The second of these two links seems more straightforward in general since it does not require a server in the form in which it is presented. The first, however, gives a very good explanation of how to train solely with one image instead of a pre-made folder of the labeled images.