



Preparation Guide for Machine Learning with ML4K & Scratch Certification

The goal of this certification is to certify that a person is proficient in the use of the Machine Learning for Kids (machinelearningforkids.co.uk) system with Scratch 3. It tests for (1) basic Machine Learning concepts, (2) data collection topics, (3) training machine learning models to recognize text, numbers, images, or sounds, and (4) how to use Scratch 3 to create projects with the ML models trained.

Below is a list of things that may be helpful in preparation for certification.

- Go to machinelearningforkids.co.uk and read "About"
- Read the summer camp 1 slides at: https://robofest.net/2020/ML_EV3_Scratch2.pdf (*EV3 related topics will not be asked*)
- Read the summer camp 2 slides at: https://robofest.net/2020/ML_EV3_Scratch3.pdf
- Train a model to recognize images. While you are waiting for the model to finish training, try answering "Quiz Time!" question

Notes:

1. This certification is NOT directly related to robotics.
2. No questions are asked about creating & drawing new sprites or backdrops with Scratch
3. Video sensing, Face detection, and Pose detection Scratch extension are used for some sample Scratch codes