All About AI: Part II

How to Easily Create AI Models without Code

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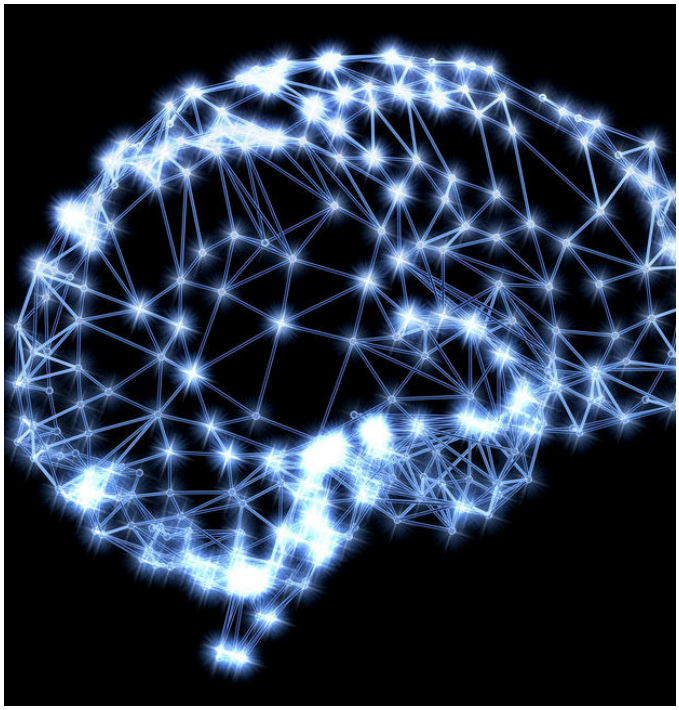
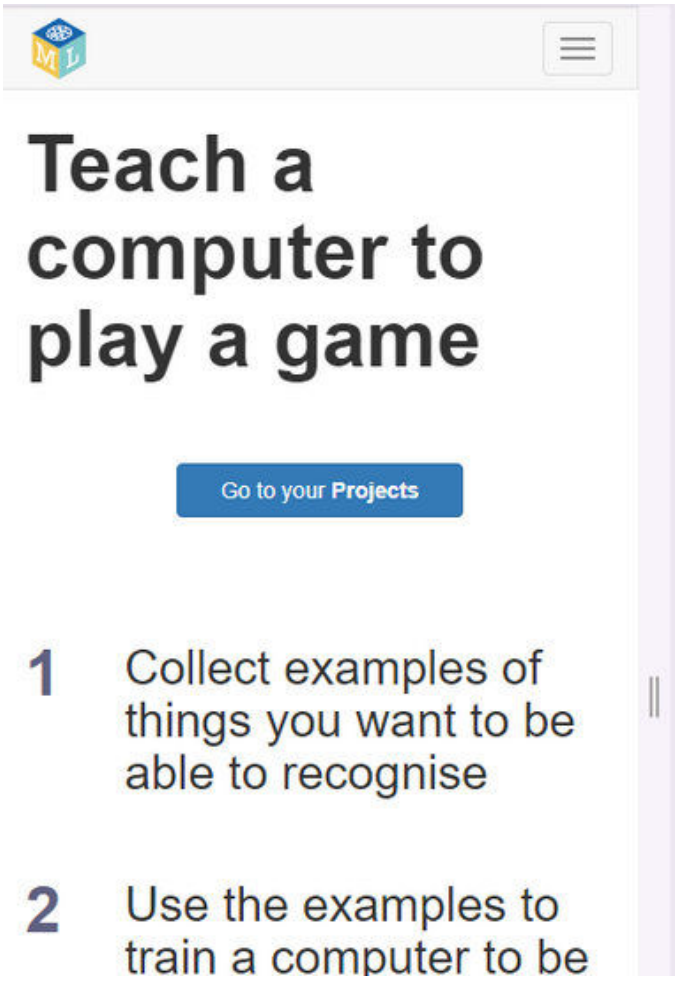
INTRODUCTION

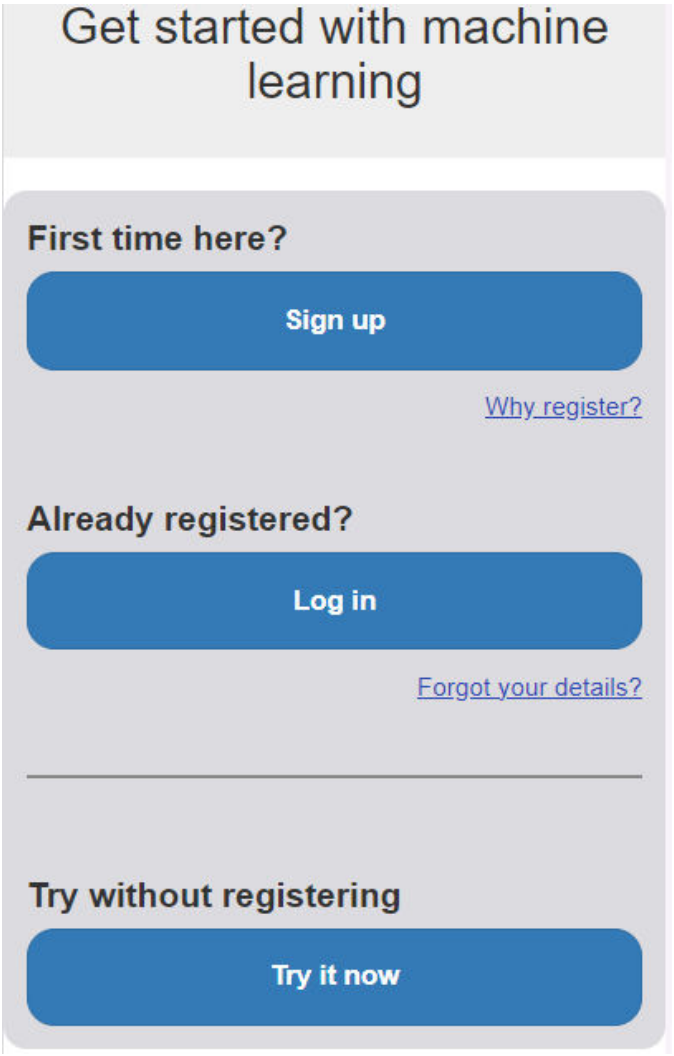
In Part 1, we learned about AI's evolution. We learned about neural networks. We also learned about reinforcement learning. If you didn't see it, neural networks are this incredible new technology. They're designed to mimic the human brain. This means they can learn and make decisions. They're being used in many areas, such as recognizing speech or analyzing big data sets.: The model has at least three layers: the input layer, the hidden layer, and the output layer. These layers are connected by weights and biases. The model changes these weights and biases to match the data. Now, it's time to apply neural networks in real life. This article won't cover algorithms, coding, or AI model complexities. Instead, it will focus on ways you can create AI models. You can do this without any coding or programming knowledge.



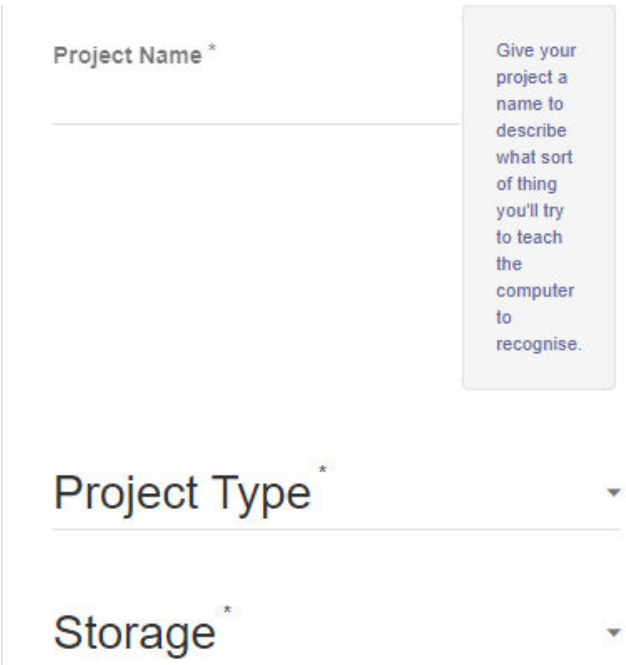


First, you should familiarize yourself with the free resources available online. Visit websites like scratch.com, machinelearningforkids.co.uk, code.org, and khanacademy.com. These websites teach you coding, logic, basic AI, and machine learning. They help you build your projects and AI models. With this knowledge, you can create your first machine learning (ML) model. You won't need coding or logic skills for this. We'll demonstrate by making an AI model. This model will identify if a person or image is 'sad or happy'.

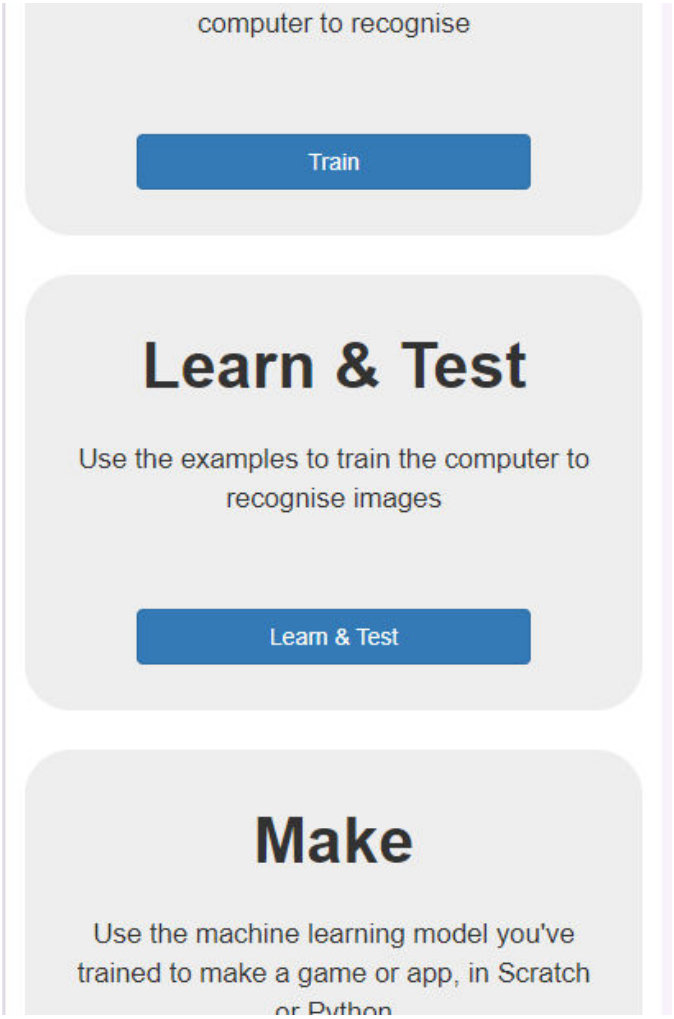
The first step is to go to https://machinelearningforkids.co.uk/ and click on the 'Get started' button. This is what the screen should look like:



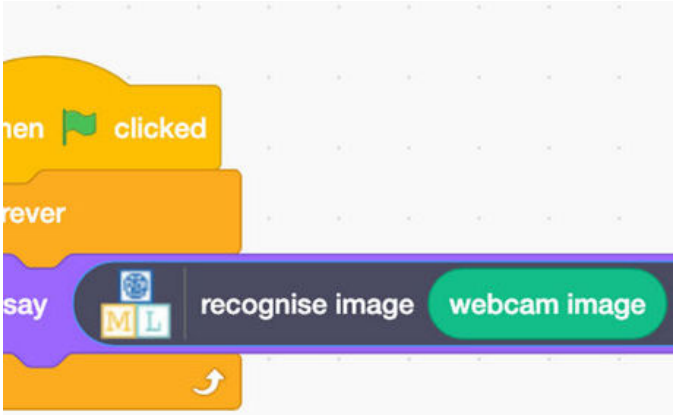
Next, click on 'Try it now' and then '+ Add a new project'. The screen should look like this:



In the 'Project Name' box, write what the name of it will be. In Project Type, use the drop-down selector to choose between text, images, sounds, and numbers. In storage, you can choose to store your project in the web browser or the cloud. For example, let's make a model for happy or sad. Select 'images' from the drop-down menu and store them in the cloud. The name will be 'happy or sad'. After that, click 'Create Model'. Then, the page should look like:



Next, click on Train. Click on the big plus and write 'happy'. Repeat it with 'sad'. In the happy section, click on the webcam. Try to look happy and click 'add'. Repeat this a few more times, and do the same with 'sad'. Finally, you can click 'back to project' and click 'Learn and Test'. After that, just train your model. Try testing it after that. It probably won't be perfect, so try adding more examples if you find it not working. Finally, you can click on 'make' to integrate it with Scratch or Python. Click on 'Scratch 3' and then 'Open in Scratch 3'. You will notice that there are two new extensions that aren't there in ordinary scratch: 'Images' and 'happy or sad'. Drag the following blocks:



This will show the webcam on the scratch project screen. The scratch cat will say if you look happy or sad.

And that's how to make an ML model using machine learning for you! This cannot handle big tasks. In the next article, we will explore using other tools and Python programming. We aim to create better AI models. See you then!

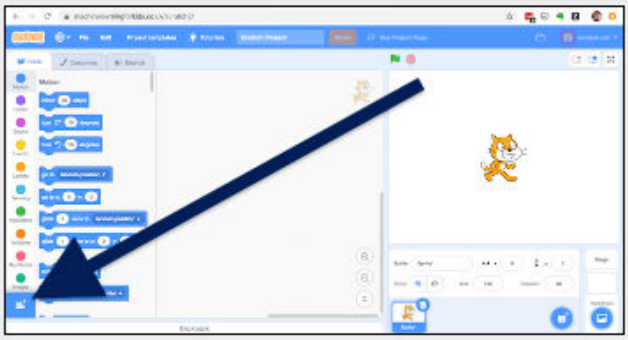
How to use

Get started

Click on the button to go to Scratch.

Go to the version of Scratch 3 available from Machine Learning for Kids.

Pre-trained models are available from the Extensions panel. Click on the blue extensions button in the bottom-left of the Scratch window to find them, then click on the one you want to add to your project.



The blocks for the pre-trained model will be added to the Scratch toolbox.

Are there other machine learning models you would like to be able to use in your Scratch projects?

Let me know by asking in the ML for Kids forum.

What students learn about AI/ML

The goal of **Machine Learning for Kids** is to help students learn about artificial intelligence and machine learning. This is done by providing opportunities to make things using machine learning technologies.

When given time and freedom to build and experiment with machine learning in a familiar sandbox like Scratch, students discover a lot about how this technology is applied and behaves.

These stories are examples: examples of what students observed, what they did, and what they learned. These are useful insights for planning how to introduce AI/ML in the classroom.

If you have your own story, please consider contributing it.

Machine learning hasn't replaced the need to learn to

Workflow of a machine learning project

Collecting more training examples often improves accu

Crowdsourcing and gamification can help to generate

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