Instructions for training model

Step 1
Log in or sign up

Step 2
Select "Train a Model"

Step 3
Select a base model type and got to "Next"

Image Classification Portal   Welcome, user0!

Choose model   Select data   Customize inputs   Name+train   Complete

1. Choose a model type

Select a model type below.

read more about model types
you selected model: VGG16

VGG16	other CNN
Deep Convolutional Networks for Large-Scale Image Recognition	multi-layer neural networks to recognize visual patterns directly from pixel images with minimal preprocessing

Cancel   Next

Step 4
Select an existing project.
Or create a project

Image Classification Portal   Welcome, user0!

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2. Upload files

1. Name a new project or select a project*
You've selected project: frog_embryo. (view trained models of this project)

cat-dog-panda   crop_embryo   **frog_embryo**

project name   create project

2. Add category*

category name   Add

Training data:
📁 control   📁 mutant

Testing data:
📁 control   📁 mutant

3. Select a folder above and upload file(s) to it*

Prev   Next

Step 5

Add categories in the project you selected, e.g. controls, mutants.
Note: the category is created in both" Training data" and" Testing data" once you click "Add".

Step 6

Select each folder from training data or testing data and upload images

Step 7 (optional)
Read about hyperparameters with the link provided.
Set your own parameters, click submit and click next.

Step 8
Type a name for your model and click "submit and train your model".

Step 9
Wait for the model to complete training. This could take a while depending on your data size and number of epochs.

You'll receive an email with training results. Click the link to view details.

Step 10
View training results and decide your next action.

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Choose model   Select data   Customize inputs   Name+train   Complete

Your model crop_embryo.h5 is successfully trained.

Confusion Matrix

Test accuracy = 0.956
(Click on a cell in the matrix to view image(s) that are predicted differently from their label, or view test data as experiment)

If you are not satisfied with this model, you can restart training or view all trained models of this project

Model details:

- selected base model: VGG16
- training data size: 500
- epoch: 20

possible ways to improve your model:

Add more data
Your trainning data size is 500, which is not a significant amount. Try increasing your sample by providing new data, which could translate into new cases or new features.
Read more about data tactics

Clean Your Data
Can you improve the signal in your data? Perhaps there are missing or corrupt observations that can be fixed or removed, or outlier values outside of reasonable ranges that can be fixed or removed in order to lift the quality of your data.
Read more about data quality, scope and quantity

Select features and examples
If estimate variance is high and your algorithm is relying on many features, you need to prune some features for better results by picking those with the highest predictive value is advisable.

Hyperparameter Tuning
Finding the best hyper-parameters is usually done manually. It's a simple task of trial and error, with some intelligent guesstimating. You'll simply try as many hyperparameter settings as you have time for, and see which one gives you the best results.
If you model's learning curve does not plateau, try add more epochs to your next training.
Read more about hyperparameters
You may also experiment with the size of your batches and the number of training epochs. Read more about Hyperparameter Optimization

[Discard model]   [Rename model]   [Mark as favorite]