Monk AI Cheatsheet Cheat Sheet

by [deleted] via cheatography.com/101890/cs/21192/

Modes

Quick mode	Use default param settings
Update mode	Update default param settings
Analysis mode	Find hyper params
Expert mode	Set params from scratch
Compare mode	Compare against output metrics

Backend Frameworks

Pytorch	v1.2.0, v1.3.0
Keras	v2.2.5, v2.3.1
GluonCV	v0.5.0
Mxnet	v1.5.1
Cuda - Support	v9.0, v10.0

OS and Python

Ubuntu	v16.04, v18.04
Mac-OS	-
Windows	v10
Python	v3.5, v3.6, v3.7

Unique Features

Write syntax invariant code

Resume interrupted experiments

Move workspaces across systems and continue training/inferencing

Compare experiments visually

Auto find hyper params

Run training/inferencing on sub-sample of original datasets

Installation

```
$ git clone https://github.com/Tessellate-Imaging/monk_v1
$ pip install -r monk_v1/installation/requirements_cu10.txt
```

Choose the right requirements file as per platform, OS and cuda support

Setup - Pythonpath

```
import sys
sys.path.append("monk_v1/monk")
```

Backend selection

```
from pytorch_prototype import prototype
from gluon_prototype import prototype
from keras_prototype import prototype
```

Select from pytorch, gluon and keras

Experiment creation

```
ptf = prototype(verbose=1);
ptf.Prototype("sample-project-1", "sample-experiment-1");
ptf = prototype(verbose=1);
ptf.Prototype("sample-project-1", "sample-experiment-2");
```

Directory sturcture created -

workspace

|----- sample-project-1

|-----------sample-experiment-1

|-----------sample-experiment-2

Quick Mode - Training

```
ptf.Default(dataset_path="train",
                model_name="resnet18",
                num_epochs=2);
ptf.Train();
```

1. Set dataset path
2. Set model name
3. Set number of epochs to train

Inferencing

```
out = ptf.Infer(img_name="path_to_img");
out = ptf.Infer(img_dir="path_to_dataset");
```

Infer over image or entire directory of images.

By **[deleted]**
cheatography.com/deleted-101890/

Published 21st November, 2019.
Last updated 21st November, 2019.