

1. `numb list` works

Having run `numb train` in a newly initiated workspace, type in `numb list` . You should be able to see:

```
+-----+
| THIS ARCHITECTURE IS GENERATED BY THE FOLLOWING CODE: |
+-----+
+-----+
class LeNet(nn.Module):
    @numb_model(dummy_input)
    def __init__(self):
        super(LeNet, self).__init__()
        self.conv1 = nn.Conv2d(3, 6, 5)
        self.fc1 = nn.Linear(1176, 120)
        self.fc3 = nn.Linear(120, 10)

    def forward(self, x):
        out = F.relu(self.conv1(x))
        out = F.max_pool2d(out, 2)
        out = out.view(out.size(0), -1)
        out = F.relu(self.fc1(out))
        out = self.fc3(out)
        return out

-----ID: 58f55ebacae77a6710a46d7eccd93b2ba1678a8e -----
+-----+
| BATCH SIZE | EPOCH | LEARNING RATE |
+-----+
|      10    |    1   |        0.1     |
+-----+
+-----+
| FAILED TO DISPLAY TESTING RESULT |
+-----+
| Perhaps they are not even recorded |
+-----+
demo git:(master) x
```

which betrays my horrible taste of coloring.

2. `numb revert` works

Train with a different set of hyperparameter. Run `numb list` . You should see:

```

-----ID:  defd6cde8be2117c942241bde1d4c5c95470c0e7 -----
+-----+-----+-----+
| BATCH SIZE | EPOCH | LEARNING RATE |
+-----+-----+-----+
|      100   |    2   |        0.1    |
+-----+-----+-----+
| FAILED TO DISPLAY TESTING RESULT |
+-----+-----+-----+
| Perhaps they are not even recorded |
+-----+-----+-----+
-----ID:  58f55ebacae77a6710a46d7eccd93b2ba1678a8e -----
+-----+-----+-----+
| BATCH SIZE | EPOCH | LEARNING RATE |
+-----+-----+-----+
|      10    |    1   |        0.1    |
+-----+-----+-----+
| FAILED TO DISPLAY TESTING RESULT |
+-----+-----+-----+
| Perhaps they are not even recorded |
+-----+-----+-----+

```

If you want to jump back to the previous version, just run `numb revert` with the git hash. In this case, 58f55ebacae77a6710a46d7eccd93b2ba1678a8e

```

demo git:(master) numb revert 58f55ebacae77a6710a46d7eccd93b2ba1678a8e
Note: checking out '58f55ebacae77a6710a46d7eccd93b2ba1678a8e'.

You are in 'detached HEAD' state. You can look around, make experimental
changes and commit them, and you can discard any commits you make in this
state without impacting any branches by performing another checkout.

If you want to create a new branch to retain commits you create, you may
do so (now or later) by using -b with the checkout command again. Example:

  git checkout -b <new-branch-name>

HEAD is now at 58f55eb... Trained at 2017-12-04 00:37:16.828036 -0600 CST m=+3.352173286 With Params: {"learning_rate": 0.1, "epoch": 1, "batch_size": 10}
Dear User:
    Please try not to edit stuff here,
    before I figure out how to let you do so safely.
A million thanks.
demo git:(58f55eb)

```

This is what you should expect.

```

# set parameters!
learning_rate = 0.1
epoch = 1
batch_size = 10 # becomes ten

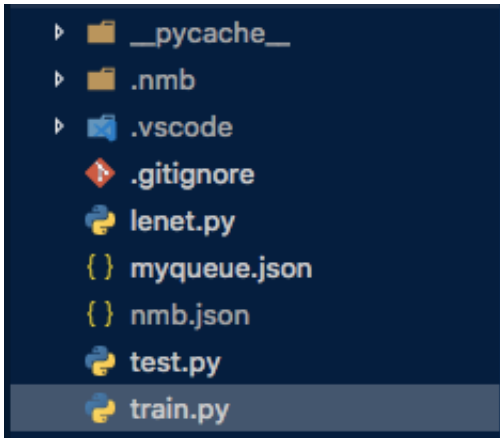
```

Also make sure the code is successfully reverted.

At last, run `numb revert` with no git hash to get back to master branch

3. `numb queue` works

(1). `numb queue init <filename>` creates the json file.



This is what you should see after running `numb queue init myqueue.json`

Fill out `myqueue.json` as the following:

```
{
  "queue": [
    {
      "learning_rate": 0.01,
      "epoch": 5,
      "batch_size": 20
    },
    {
      "learning_rate": 0.1,
      "epoch": 10,
      "batch_size": 50
    },
    {
      "learning_rate": 0.05,
      "epoch": 20,
      "batch_size": 100
    }
  ],
  "start": 0,
  "end": 3
}
```

(2). `numb queue run <filename>` runs with the sets of parameters in queue.

By running `numb queue run myqueue.json`, you should see:

```
demo git:(master) numb queue run myqueue.json
NO OP FOR PARAM!
Done Training!
NO OP FOR PARAM!
Done Training!
NO OP FOR PARAM!
Done Training!
```

Cool. Three in a row. Then you run `numb list` and see:

```

-----ID: -----
+-----+-----+-----+
| BATCH SIZE | EPOCH | LEARNING RATE |
+-----+-----+-----+
|      100  |    20 |         0.05  |
+-----+-----+-----+
+-----+-----+-----+
| FAILED TO DISPLAY TESTING RESULT |
+-----+-----+-----+
| Perhaps they are not even recorded |
+-----+-----+-----+
-----ID: -----
+-----+-----+-----+
| BATCH SIZE | EPOCH | LEARNING RATE |
+-----+-----+-----+
|      50   |    10 |         0.1   |
+-----+-----+-----+
+-----+-----+-----+
| FAILED TO DISPLAY TESTING RESULT |
+-----+-----+-----+
| Perhaps they are not even recorded |
+-----+-----+-----+
-----ID: -----
+-----+-----+-----+
| BATCH SIZE | EPOCH | LEARNING RATE |
+-----+-----+-----+
|      20   |     5 |        0.01  |
+-----+-----+-----+
+-----+-----+-----+
| FAILED TO DISPLAY TESTING RESULT |
+-----+-----+-----+
| Perhaps they are not even recorded |
+-----+-----+-----+

```

This shows that all have been run and checked in database