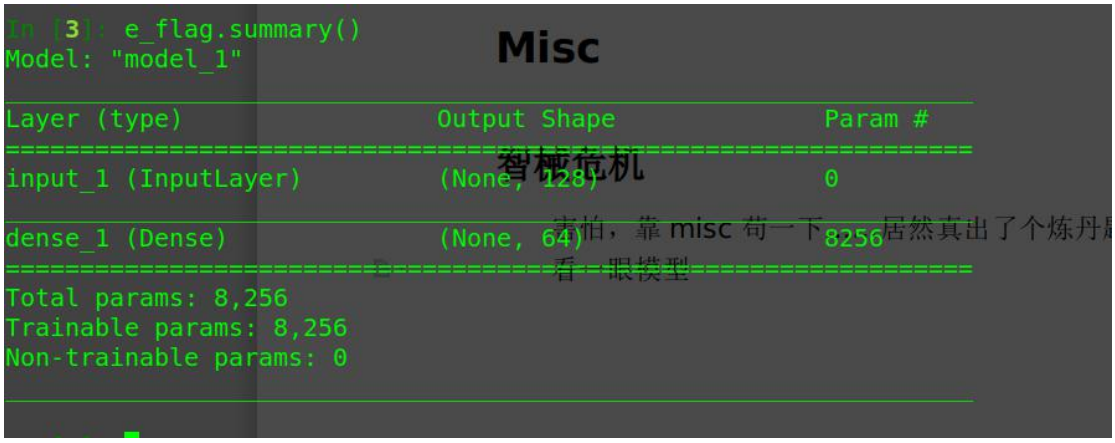
HgameWeek3Wp

Misc

智械危机

害怕，靠 misc 苟一下……居然真出了个炼丹题……



看一眼模型从 128 维到 64 维的一个线性变换，虽然知道有信息损失但是因为给了系数，以为算个线性方程组的最小二乘解就行，事实上并不能过……于是就开始炼丹了……开了两层全链接层

```
from keras.models import load_model
import numpy as np
from keras.models import Sequential
from keras.layers import Activation, Dropout, Dense
from keras import optimizers

epochs = 1
batch_size = 32
inp = input()
inp = np.asarray(inp.split(' '), dtype=float)

e_model = load_model('flag.hdf5')

input_data = np.random.randint(0, 2, size=[100000, 128])
e_data = e_model.predict(input_data)
print(e_data)
print(e_data.shape)
```

```
r_model = Sequential()
r_model.add(Dense(96, input_shape=(64,), ))
r_model.add(Dropout(0.3))
r_model.add(Activation('sigmoid'))
r_model.add(Dense(128, ))
r_model.add(Dropout(0.3))
r_model.add(Activation('sigmoid'))
r_model.compile(loss='mse',
              optimizer=optimizers.Adam(),)
r_model.load_weights('r2.h5')
r_model.fit(e_data, input_data, epochs=epochs,
          batch_size=batch_size,
          validation_split=0.2)
r_model.save('r2.h5')
r = r_model.predict(np.array([inp]))
for i in r[0]:
   print(0 if i <0.5 else 1, end=' ')
```