

```

1 import numpy as np
2 import os
3 from sklearn.metrics import confusion_matrix
4 import seaborn as sn; sn.set(font_scale=1.4)
5 from sklearn.utils import shuffle
6 import matplotlib.pyplot as plt
7 import cv2
8 import tensorflow as tf
9 from tqdm import tqdm

1 class_names = ['mountain', 'street', 'glacier', 'buildings', 'sea', 'forest']
2 class_names_label = {class_name:i for i, class_name in enumerate(class_names)}
3
4 nb_classes = len(class_names)
5
6 IMAGE_SIZE = (150, 150)

1 def load_data():
2
3
4     datasets = ['../input/seg_train/seg_train', '../input/seg_test/seg_test']
5     output = []
6
7     # Iterate through training and test sets
8     for dataset in datasets:
9         images = []
10        labels = []
11
12        print("Loading {}".format(dataset))
13
14        # Iterate through each folder corresponding to a category
15        for folder in os.listdir(dataset):
16            label = class_names_label[folder]
17
18            # Iterate through each image in our folder
19            for file in tqdm(os.listdir(os.path.join(dataset, folder))):
20
21                # Get the path name of the image
22                img_path = os.path.join(os.path.join(dataset, folder), file)
23                # Open and resize the img
24                image = cv2.imread(img_path)
25                image = cv2.cvtColor(image, cv2.COLOR_BGR2RGB)
26                image = cv2.resize(image, IMAGE_SIZE)
27
28                # Append the image and its corresponding label to the output
29                images.append(image)
30                labels.append(label)
31
32            images = np.array(images, dtype = 'float32')
33            labels = np.array(labels, dtype = 'int32')
34
35            output.append((images, labels))
36
37    return output

```

