

## User's guide

This document is written to present how to repeat our proposed approach.

Before running the code of ALSLHASS, the following reminders are worth noting.

Code running environment:

1. Install Pycharm
2. Python: Install the python3.8 interpreter or later.
3. Pytorch: `pip3 install torch torchvision torchaudio --index-url https://download.pytorch.org/whl/cu117`

Need to install python library functions:

```
import numpy as np
import torch
import cv2
import torchvision.transforms
from numpy import mat, ones
from torch.utils.data import DataLoader
from tqdm import tqdm
import math
import random
import glob
from sklearn.preprocessing import StandardScaler
from sklearn.neighbors import KNeighborsClassifier
from sklearn.tree import DecisionTreeClassifier
import os
import matplotlib.pyplot as plt
import torchvision
import PIL.Image as Image
```

If you encounter a problem, please do not hesitate to contact us: E-mail:

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