User Guide

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Description

Based on our research paper "Hyperspectral change detection using semi-supervised graph neural network and convex deep learning (CODE-HCD)", we prepare a demo file for researchers to investigate our theory and algorithm.

Requirements

• MATLAB: R2021b

• torch: 1.7.0+cu110

• torchvision: 0.8.1+cu110

• numpy: 1.19.2

• scikit-learn: 1.1.3

• scipy: 1.4.1

• scikit-image: 0.19.3

Run the code

Open MATLAB in the environment that has installed Pytorch. Then, run the Matlab program "main.m" to see the quantitative and qualitative performances of CODE-HCD.

If you want to run this code with your own data, just put the data in the Dataset folder and modify the "load_data" function in "main.py", the settings in the config file, and the corresponding part of "main.m".

Citation

If you find our work useful in your research or publication, please kindly cite our work:

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\label{eq:convex Deep Learning}, \\ year=\{2023\}, \\ volume=\{61\}, \\ number=\{\}, \\ pages=\{1\text{-}18\}, \\ doi=\{10.1109/TGRS.2023.3286440\}\} \\
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