The codes of several benchmarking spatial clustering algorithms are available in the GitHub repositories. For example, STAGATE (https://github.com/zhanglabtools/STAGATE), SEDR (https://github.com/JinmiaoChenLab/SEDR/), spaGCN (https://github.com/jianhuupenn/SpaGCN), CCST (https://github.com/xiaoyeye/CCST), DeepST (https://github.com/JiangBioLab/DeepST). The stLearn and Scanpy can be installed from https://stlearn.readthedocs.io/en/latest/ and https://scanpy.readthedocs.io/en/stable/, respectively.