

Exploratory data analysis in environmental health

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Setup instructions

Note: The following steps will guide you in creating a new, clean environment named “gwr_clean_env”, which contains all the necessary packages to ensure that the “GWR.ipynb” notebook works smoothly. If you prefer not to create a new environment and instead use an existing one, ensure that the required packages (listed below) are installed in your environment.

Required Packages:

numpy, pandas, geopandas, matplotlib, mgwr, jupyter, statsmodels

Environment Setup

1. Install Anaconda or miniconda:

- Download Anaconda from this [link](#) or Miniconda from this [link](#).
- Follow the [detailed installation instructions](#) specific to your operating system.

2. Create and configure the conda environment:

- Open the Anaconda or Miniconda Prompt (on Windows) or Terminal (on macOS/Linux).
- Create a new environment named *gwr_clean_env* and install the necessary packages by running:
 - I. `conda create -n gwr_clean_env python=3.9`
 - II. `conda activate gwr_clean_env`
 - III. `conda install -c conda-forge numpy pandas geopandas matplotlib mgwr jupyter statsmodels scipy=1.10.1`
 - IV. `conda install ipykernel`
 - V. `python -m ipykernel install --user --name gwr_clean_env --display-name "GWR Clean Environment"`

3. Open jupyter notebook:

- Navigate to your working directory and launch Jupyter Lab:
cd C:\XXX... \XXX
jupyter lab

Open “GWR.ipynb” and ensure you select the environment with all the required packages installed.

4. Verify package imports

- Run the first cell, labeled “Importing libraries,” to check for any import errors. If there are none, you’re all set for the assignment.