Lab 9 – Write a function in Python that computes the median in a window of size w (odd number)

- Implementation of Medial Filtering
- Python Linting

The task

- Use Python and supporting libraries to implement a median filter

- The function median should take as input a list and generate a filtered list, where every element will be replaced with the median at that location.

- You should check if the filter length is an odd number.

- You should use zero padding in the input list based on the filter length.

- Your demo code should contain a test which verifies that your median filter is doing the right thing.

- Do not forget to push your code in your github repository.

- FOR THIS EXERCISE YOU ARE NOT ALLOWED TO USE THE MEDIAN() FUNCTION IN NUMPY. But you can use it to test your code if you want.

Linting

- The recommended style guide for Python is PEP8,

- Other python linters are: black, and yapf.

- Autopep8 tends to do minimal changes keeping the code structure while applying PEP8 style conventions. VS Code has autopep8 installed by default.

- For installing autopep8 system-wide: pip3 install autopep8.