

Assignment#2: Interpolation

Interpolation

Requirements:

Using the GUI you created in assignment 1:

1. After browsing for an image, if the image is in RGB then transform it to grayscale
2. In a new tab:
 - a. Display a zoomed version of that image using a zooming factor input by the user from a textbox
 - b. You should display 2 zoomed versions of the original image using 2 different interpolation methods:
 - i. Nearest-neighbor interpolation
 - ii. Linear interpolation
3. You are not allowed to use built-in libraries for interpolation. The code should be written from scratch

Submission

- The due date for submission is Wednesday, 19/10/2022
- This is an individual based assignment.
- The submission will be in person during the tutorial.

General instructions

- Handle any errors or exceptions that might occur (e.g., corrupted image)
- You are allowed to use MATLAB (App Designer) or Python (PyQt)
- Your code should be clear, understandable, and documented (COMMENTS)
- Follow a consistent naming convention for variables and functions
- The assignment will be graded out of 4