

ABRHS Research Club Data Science Workshop

Workshop Title:

Image processing hands on workshop

Workshop Date:

December 10 2024

Welcome to the "Image processing hands on workshop", scheduled to take place on December 10 2024, within the Data Science track of the ABRHS Research Club.

Workshop Objective:

Hands on tutorial session focused on fundamentals of image processing for data science projects, including kernel convolution, and edge detection using python and open-source Python libraries for scientific computing like numpy and pandas.

Workshop Outline:

Concepts:

- Meet Lena
- What is an image?
- What actually is an image?
- The most basic coding pattern for image processing
- Real example of image processing
- Kernel convolution:
 - i. Vertical edges
 - ii. Horizontal edges
 - iii. Blurring
 - iv. Sharpening
 - v. Embossing
- Edge Detection
- Connection to DeepLearning