Grayscale Filter

### A grayscale filter from scratch involves creating a function to convert a color image to grayscale while optionally applying transformations like rotation and flipping. Grayscale conversion simplifies subsequent image processing tasks by reducing complexity to a single intensity value per pixel, representing its brightness.

# Rotation

Rotate an image by a specified angle (e.g., 90 degrees clockwise) around its center, adjusting dimensions as necessary.

# Flipping

Flip an image horizontally or vertically to create mirror images, useful for creating symmetrical effects or correcting image orientation.

# Use Cases

1. Preprocessing for Analysis
2. Augmentation
3. Artistic Effects