### **# Filters to Use**

|  | **Filter** | **OpenCV Function** | **Purpose** |
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| 1 | **Bilateral Filter** | cv2.bilateralFilter() | Reduces noise while keeping edges sharp |
| 2 | **CLAHE (Contrast Limited Adaptive Histogram Equalization)** | cv2.createCLAHE().apply() | Enhances contrast, useful for foggy/blurry underwater images |
| 3 | **Gaussian Blur** | cv2.GaussianBlur() | Removes Gaussian noise, smooths image |
| 4 | **Unsharp Masking (Sharpening)** | Custom via cv2.addWeighted() | Sharpens image details |
| 5 | **Gamma Correction** | Manual (np.power()) | Brightens or darkens image for clarity |

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