**Lesson 1: Installing OpenCV and Setting Up the Environment**

**✅ Install OpenCV using pip:**

pip install opencv-python

pip install opencv-python-headless # For environments without GUI support

**✅ Verify installation by opening a Python shell or Jupyter Notebook and typing:**

import cv2

print(cv2.\_\_version\_\_)

**✅ Set up your preferred development environment:**

VS Code: Lightweight and great with Python extensions.

PyCharm: Powerful for large projects.

Jupyter Notebook: Excellent for visualization and step-by-step experimentation.

**✅ Optional: Create a virtual environment to keep your dependencies organized:**

python -m venv cv-env

source cv-env/bin/activate # Mac/Linux

cv-env\Scripts\activate # Windows