

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
```
