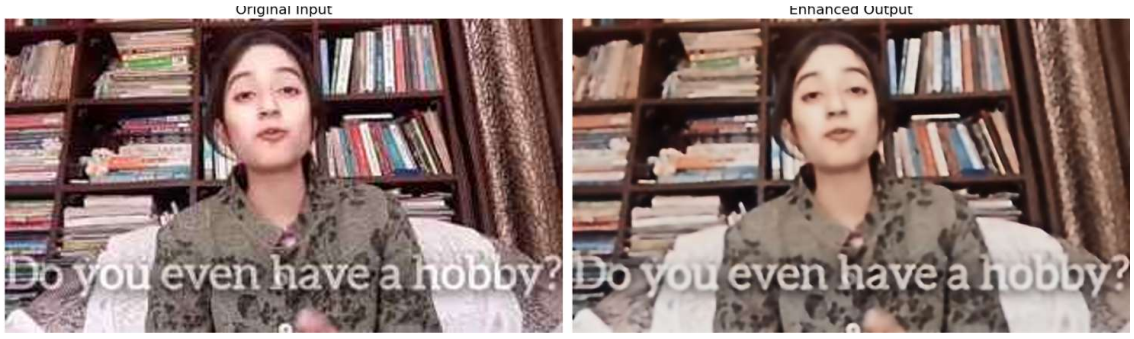
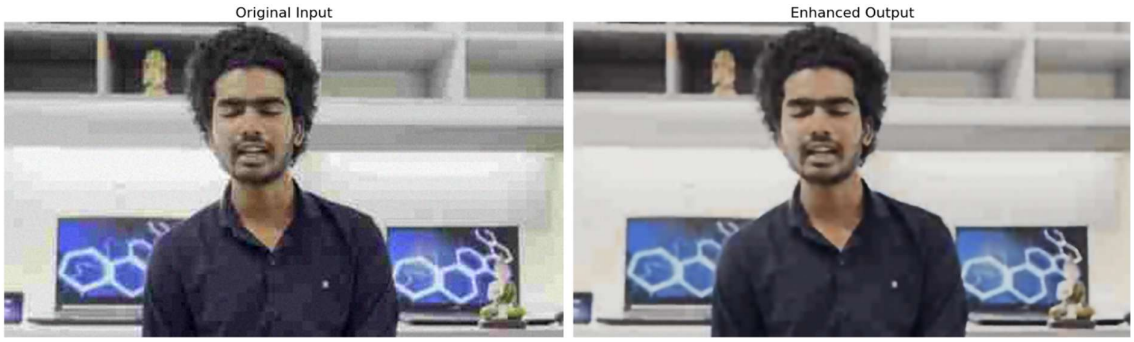
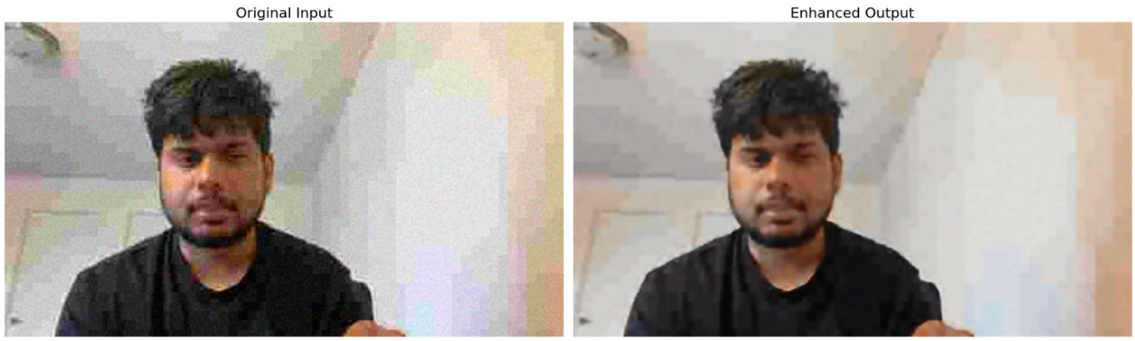
Results:



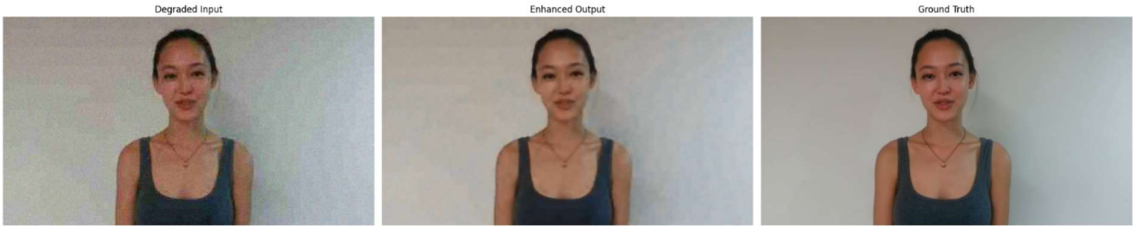
Processed in 0.2548 seconds (3.92 FPS).





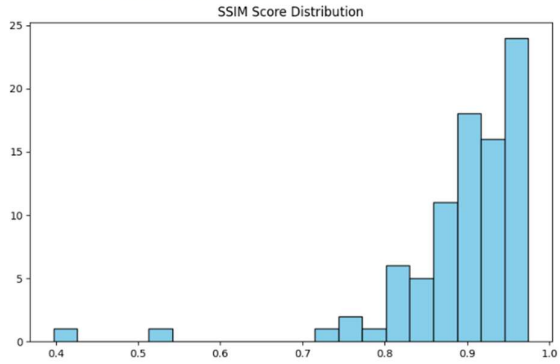
OPENVINO:

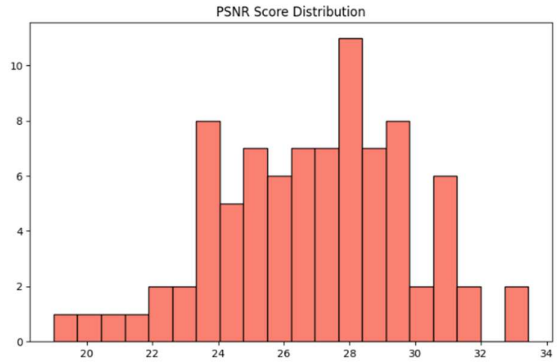
Best Case Example: SSIM = 0.9745, PSNR = 30.91 dB



```
==================================================
📊 CPU BENCHMARK (OpenVINO) - NUMERICAL SUMMARY 📊
==================================================
Average SSIM: 0.8937 (Std Dev: 0.0859)
Average PSNR: 26.89 dB (Std Dev: 2.92)
Average FPS (System Throughput): 0.10 FPS
==================================================

==================================================
📈 CPU BENCHMARK (OpenVINO) - GRAPHICAL ANALYSIS 📈
==================================================
```






```
==================================================
📊 CPU BENCHMARK (OpenVINO) - FINAL REPORT 📊
==================================================
Average SSIM: 0.8937 (Std Dev: 0.0859)
Average PSNR: 26.89 dB (Std Dev: 2.92)
--------------------------------------------------
--- Performance Analysis ---
Average Model FPS (Pure Computation): 0.14 FPS
Average System Throughput (w/ File I/O): 0.11 FPS
==================================================
```

```
==================================================
📊 CPU BENCHMARK (OpenVINO) - FINAL REPORT 📊
==================================================
Average SSIM: 0.8937 (Std Dev: 0.0859)
Average PSNR: 26.89 dB (Std Dev: 2.92)
--------------------------------------------------
--- Performance Analysis ---
Average Model FPS (Pure Computation): 0.15 FPS
Average System Throughput (w/ File I/O): 0.15 FPS
==================================================
```

```
============================================================
        STUDENT MODEL - AUTO-DETECT BENCHMARK REPORT
============================================================
Total Images Processed:        86
 - 'Demo' Mode (Shrink First): 21 images
 - 'Enhance' Mode (Direct):    65 images
------------------------------------------------------------
--- Model Performance (Pure Computation) ---
Average Model Inference Time:  0.0171 seconds/image
Average Model FPS:             58.48
------------------------------------------------------------
--- System Performance (includes File I/O) ---
Average Total Time per Image:  0.8601 seconds/image
Average System Throughput:     1.16 FPS
------------------------------------------------------------
Average SSIM Score (All):      0.8782

✅ All enhanced outputs and their corresponding inputs saved to: /content/student_auto_results/
============================================================
```

```
============================================================
        STUDENT MODEL - AUTO-DETECT BENCHMARK REPORT
============================================================
Total Images Processed:        86
 - 'Demo' Mode (Shrink First): 21 images
 - 'Enhance' Mode (Direct):    65 images
------------------------------------------------------------
Average Inference Time:        0.0139 seconds/image
Average FPS:                   72.06
Average SSIM Score (All):      0.8782
```

```
============================================================
📊 PYTORCH CPU BENCHMARK (UN-OPTIMIZED) - FINAL REPORT 📊
============================================================
Average SSIM: 0.8937 (Std Dev: 0.0859)
Average PSNR: 26.89 dB (Std Dev: 2.91)
------------------------------------------------------------
--- Performance Analysis ---
Average Model FPS (Pure Computation): 0.05 FPS
Average System Throughput (w/ File I/O): 0.05 FPS
============================================================
```