

Lab03

Wniosek dotyczący Canny:

Detekcja krawędzi Canny dobrze pokazuje efekty skalowania. Przy powiększaniu krawędzie stają się grubsze, co potwierdza poprawne zwiększenie rozdzielczości. Przy pomniejszaniu krawędzie zanikają lub są cieńsze, co odzwierciedla utratę szczegółów. Canny jest szczególnie przydatne przy ocenie jakości powiększania, gdzie różnice nie zawsze są widoczne gołym okiem.

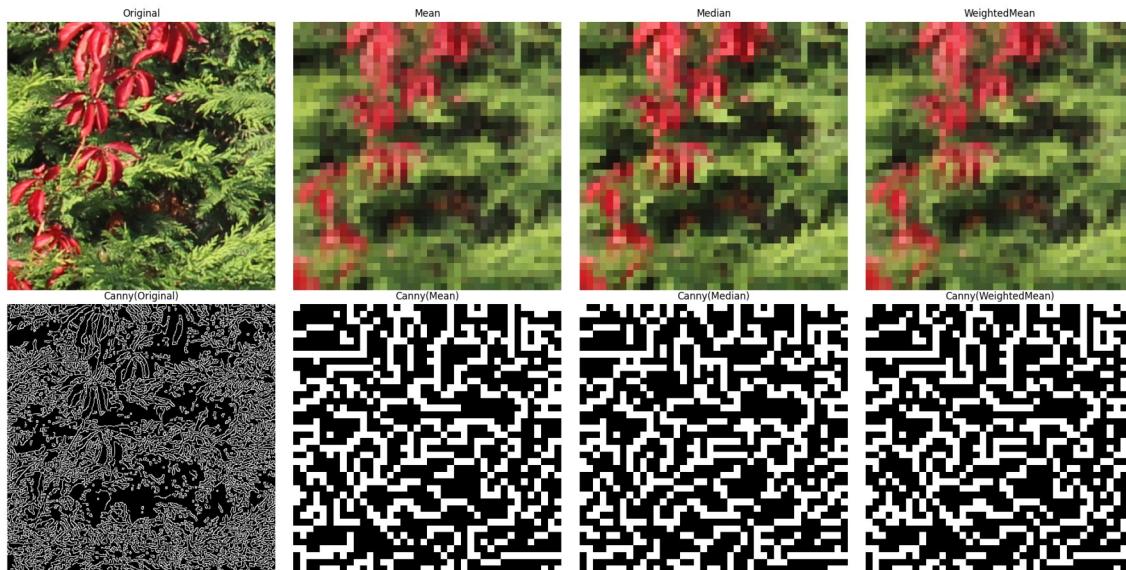
Downscaling Results

[File: BIG_0001.jpg](#)

Downscaling Results

Fragment 1 – Coords: [500, 2000, 900, 2400]

Scale: 10%

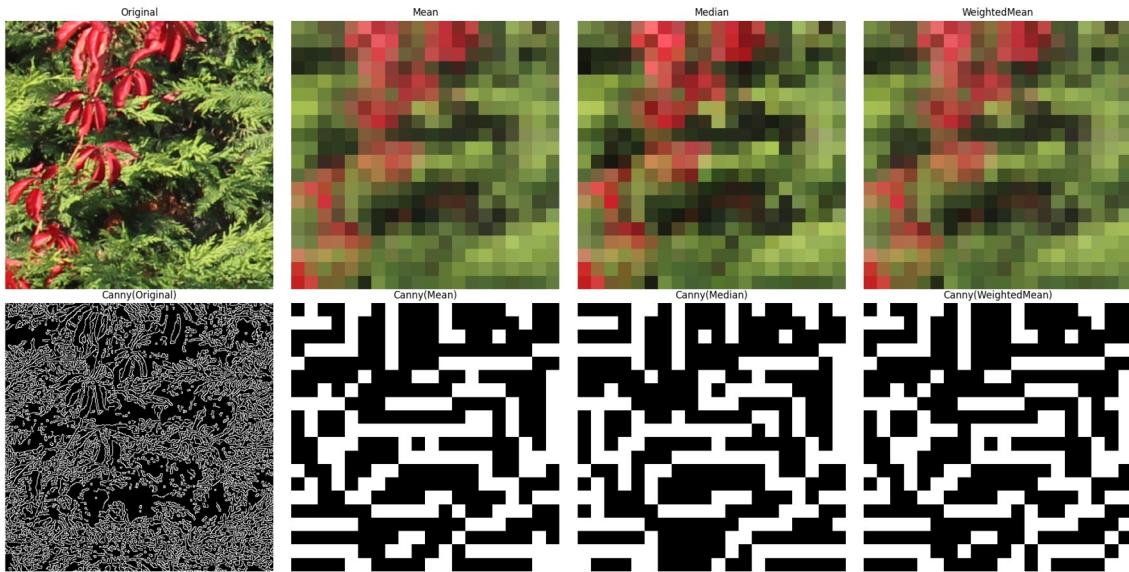


Mean: 0.12 seconds

Median: 0.13 seconds

WeightedMean: 0.15 seconds

Scale: 5%



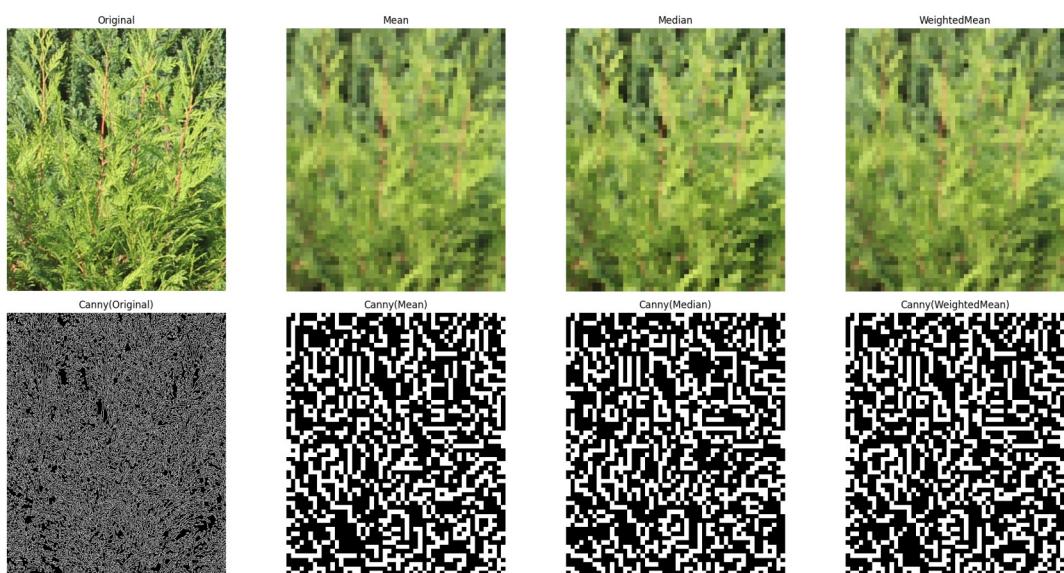
Mean: 0.03 seconds

Median: 0.05 seconds

WeightedMean: 0.04 seconds

Fragment 2 – Coords: [1000, 1000, 1500, 1600]

Scale: 10%

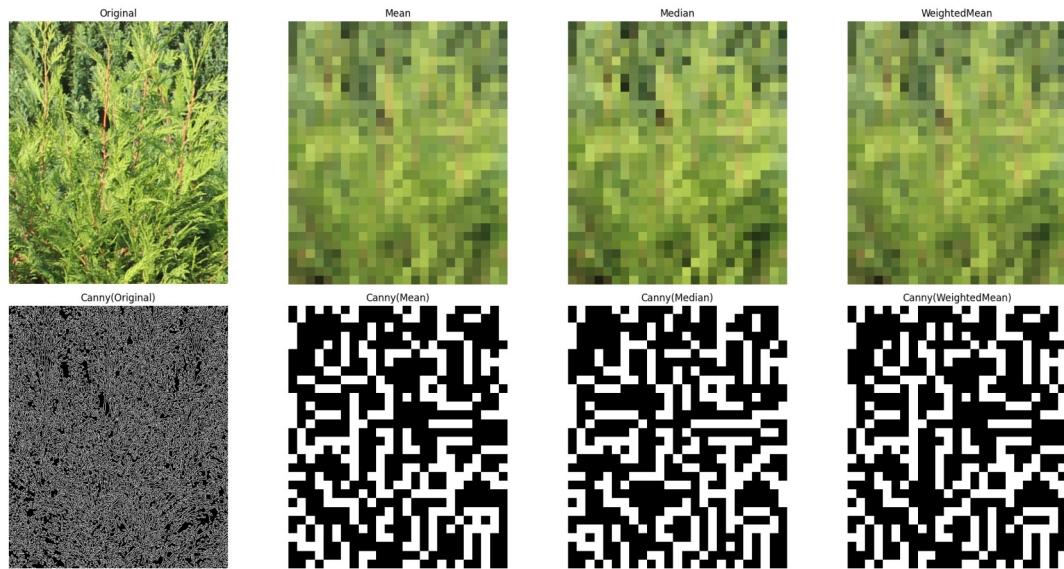


Mean: 0.21 seconds

Median: 0.25 seconds

WeightedMean: 0.31 seconds

Scale: 5%



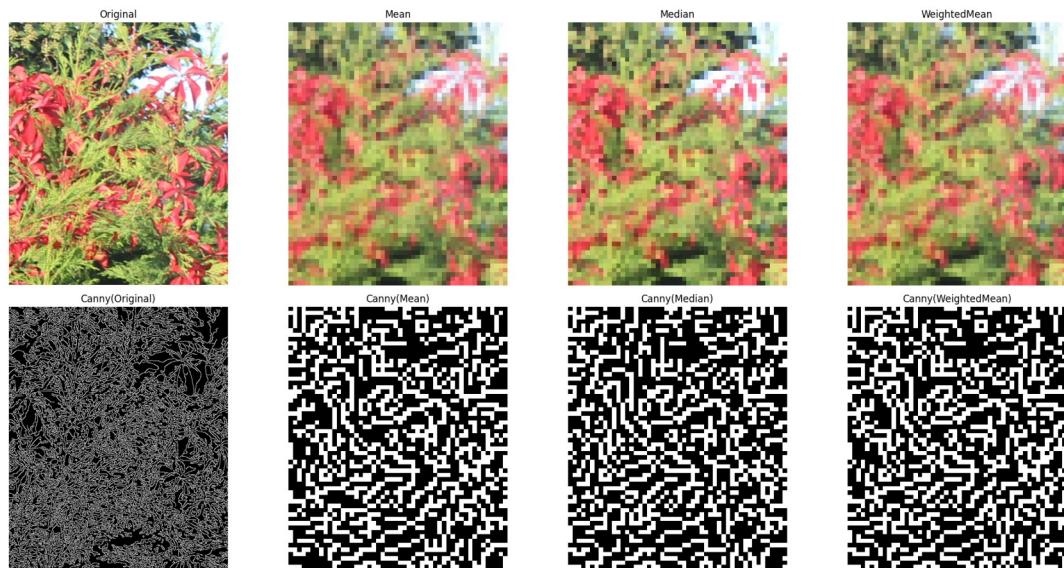
Mean: 0.05 seconds

Median: 0.06 seconds

WeightedMean: 0.08 seconds

Fragment 3 – Coords: [3500, 600, 4000, 1200]

Scale: 10%



Mean: 0.17 seconds

Median: 0.28 seconds

WeightedMean: 0.24 seconds

Scale: 5%



Mean: 0.06 seconds

Median: 0.09 seconds

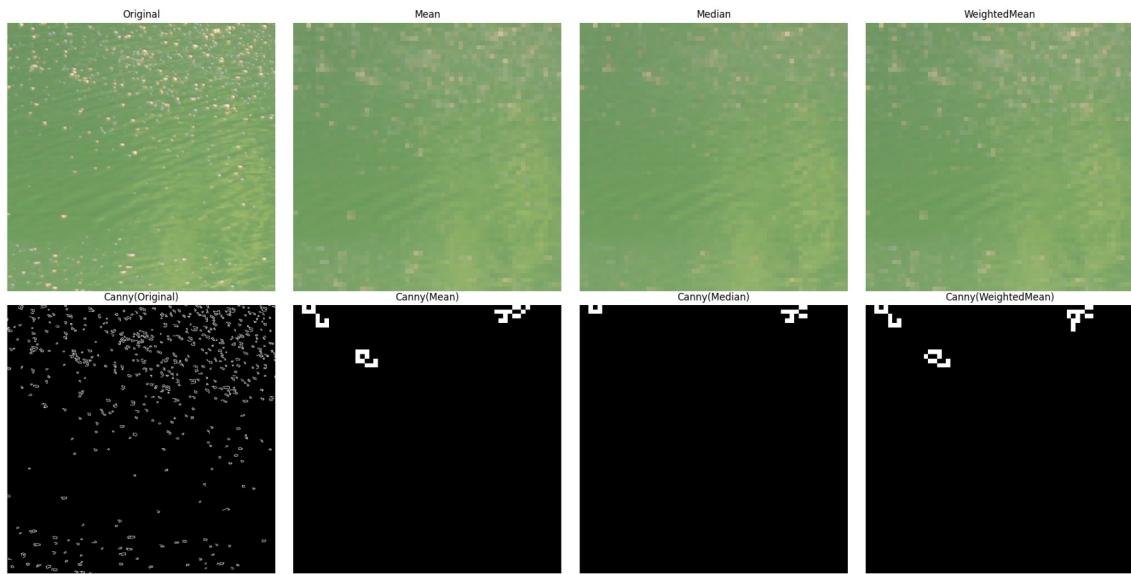
WeightedMean: 0.08 seconds

File: BIG_0002.jpg

Downscaling Results

Fragment 1 – Coords: [1000, 2400, 1600, 3000]

Scale: 10%

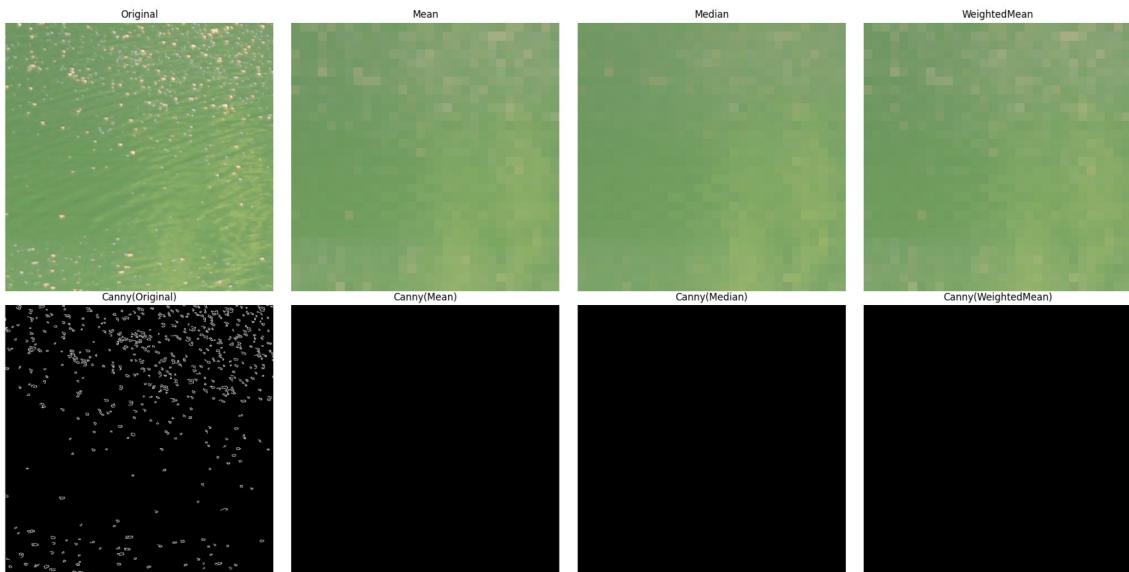


Mean: 0.20 seconds

Median: 0.30 seconds

WeightedMean: 0.33 seconds

Scale: 5%



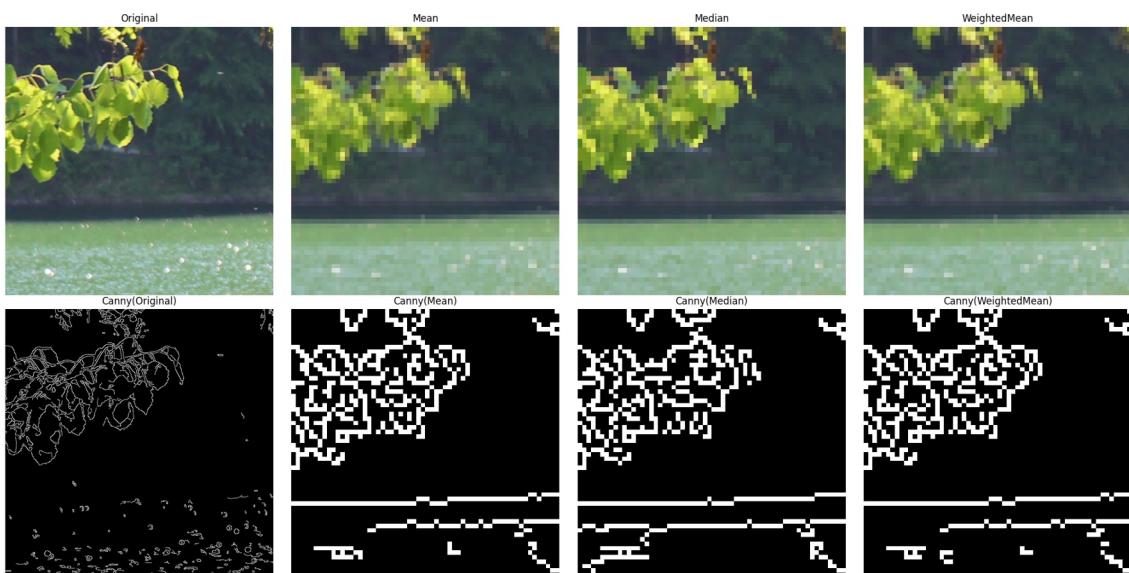
Mean: 0.09 seconds

Median: 0.09 seconds

WeightedMean: 0.08 seconds

Fragment 2 – Coords: [800, 1200, 1400, 1800]

Scale: 10%

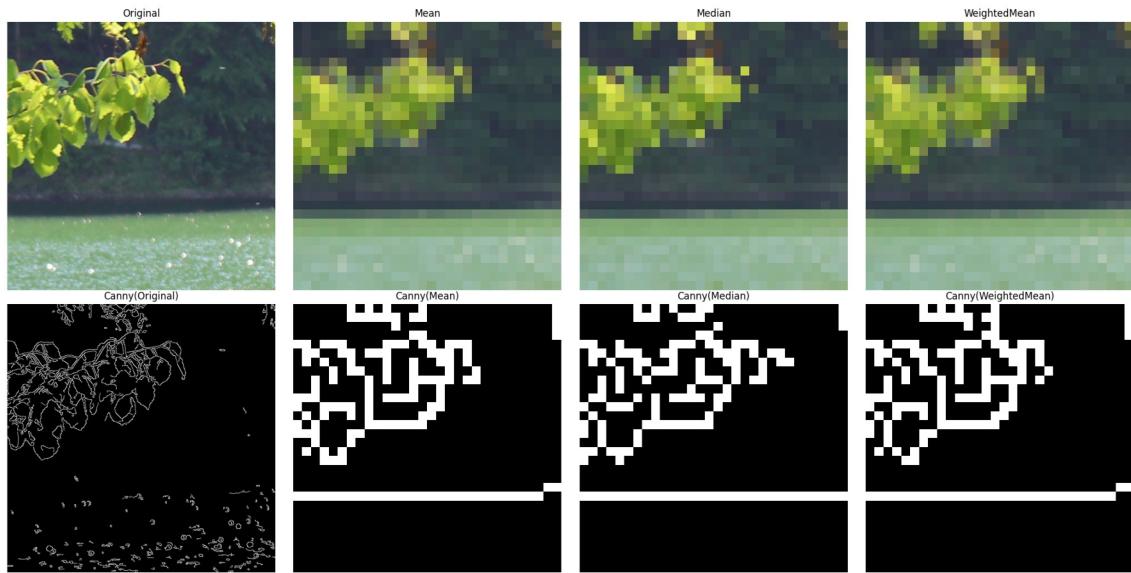


Mean: 0.22 seconds

Median: 0.28 seconds

WeightedMean: 0.29 seconds

Scale: 5%



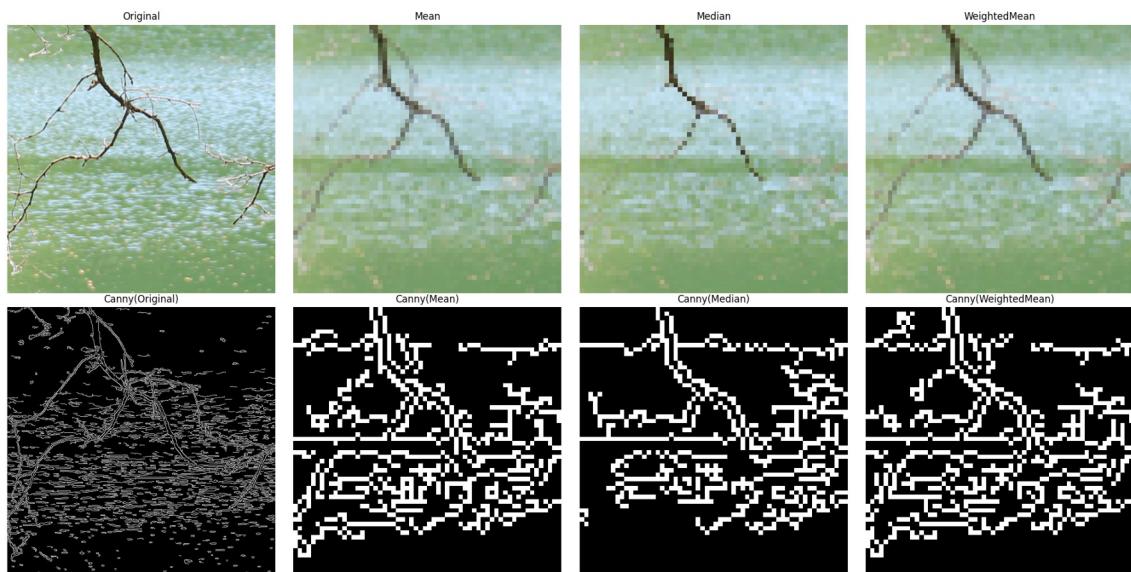
Mean: 0.06 seconds

Median: 0.08 seconds

WeightedMean: 0.07 seconds

Fragment 3 – Coords: [3000, 1800, 3600, 2400]

Scale: 10%

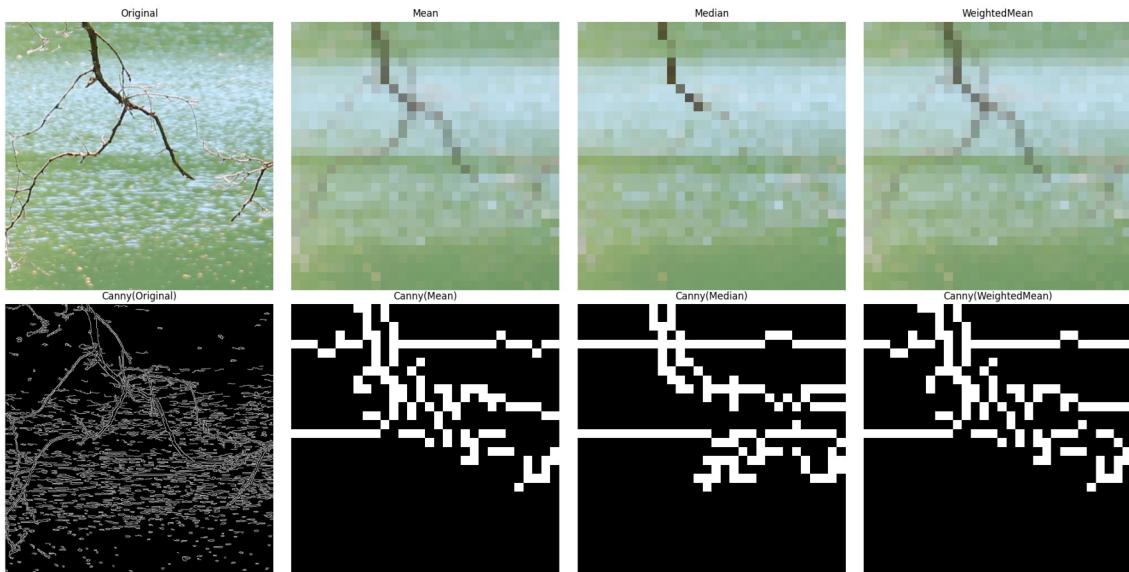


Mean: 0.19 seconds

Median: 0.29 seconds

WeightedMean: 0.34 seconds

Scale: 5%



Mean: 0.08 seconds

Median: 0.08 seconds

WeightedMean: 0.10 seconds

File: SMALL_0003.png

Upscaling Results

Scale: 200%



Nearest neighbors: 0.01 seconds

Bilinear interpolation: 0.09 seconds

Scale: 500%



Nearest neighbors: 0.14 seconds

Bilinear interpolation: 0.68 seconds

File: SMALL_0005.jpg

Upscaling Results

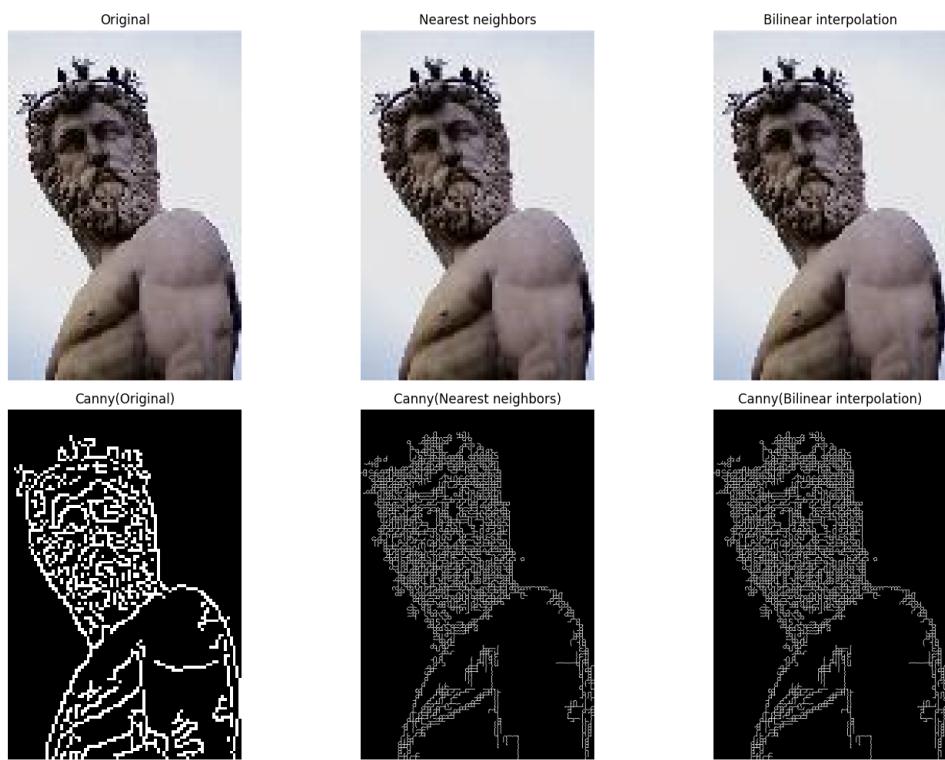
Scale: 200%



Nearest neighbors: 0.00 seconds

Bilinear interpolation: 0.01 seconds

Scale: 500%



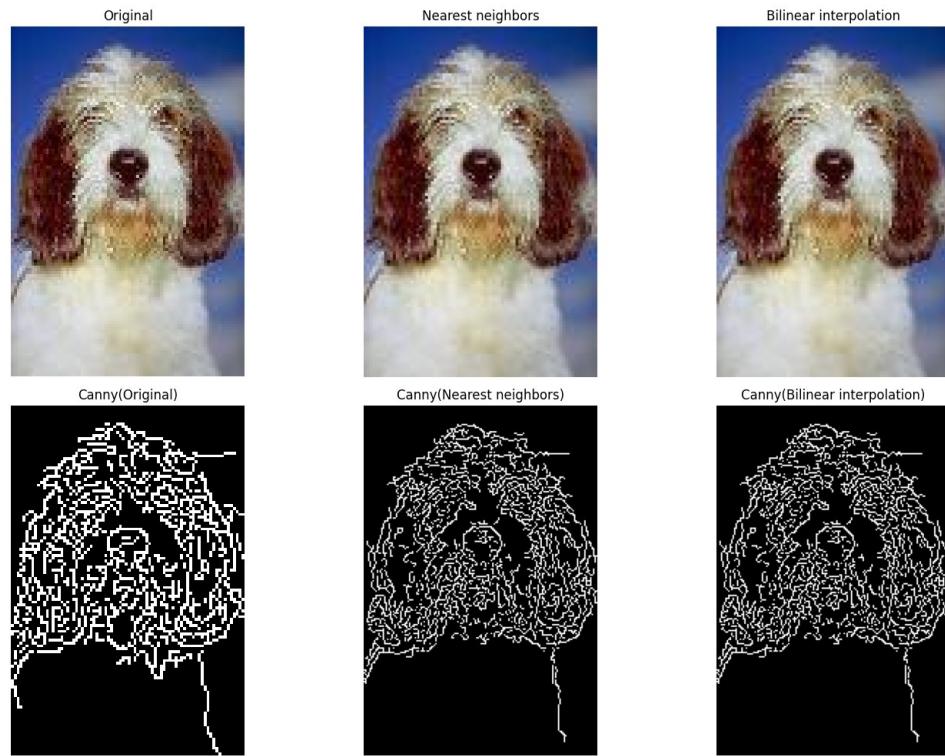
Nearest neighbors: 0.01 seconds

Bilinear interpolation: 0.07 seconds

File: SMALL_0007.jpg

Upscaling Results

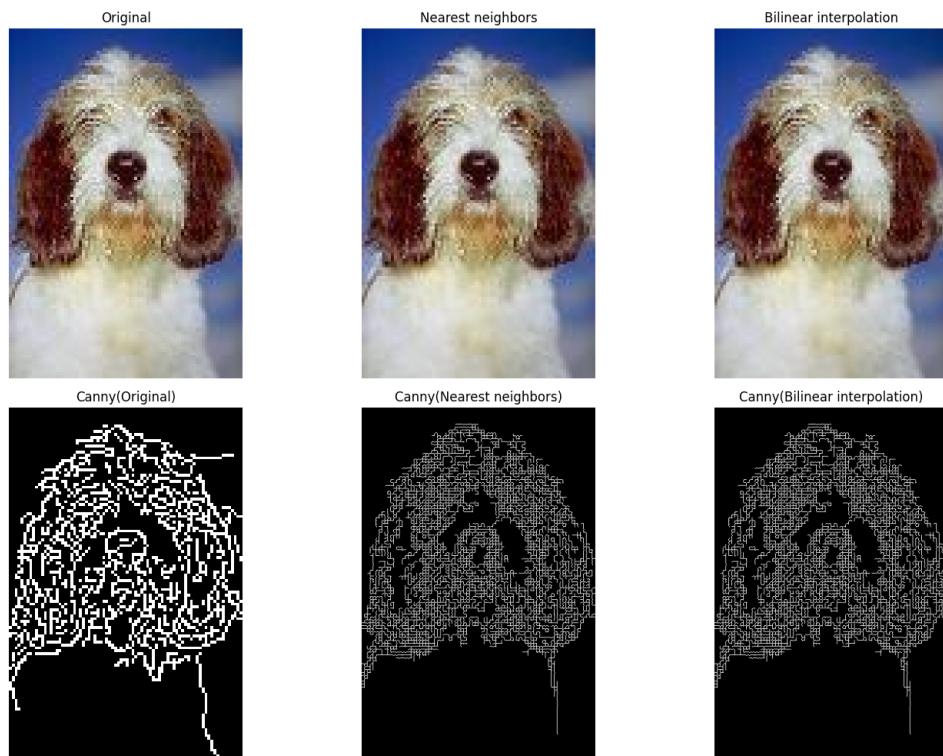
Scale: 200%



Nearest neighbors: 0.00 seconds

Bilinear interpolation: 0.01 seconds

Scale: 500%



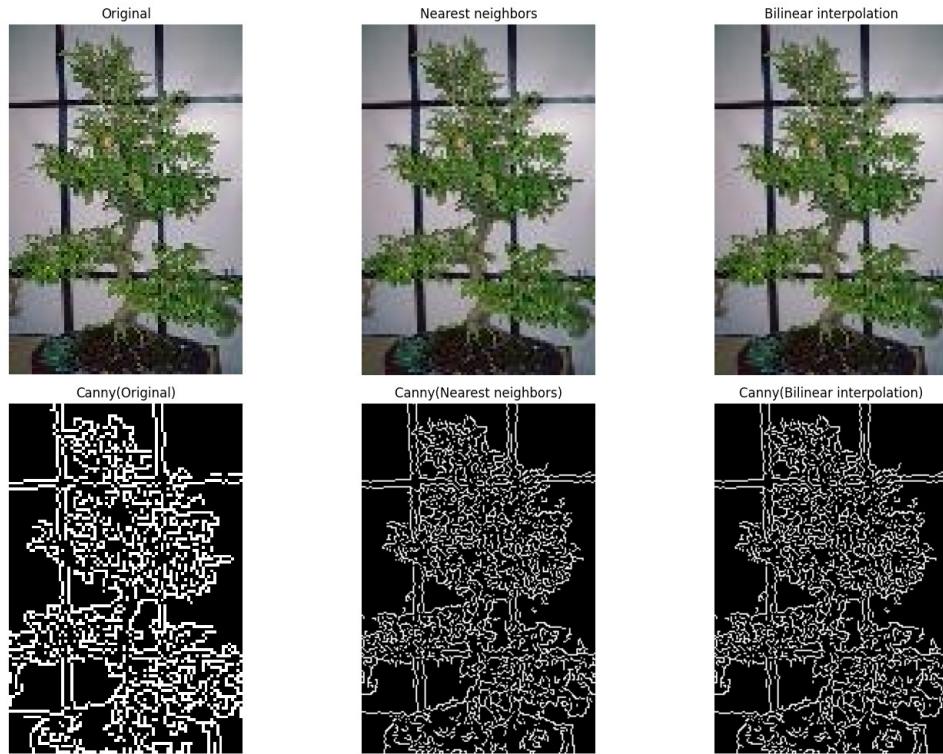
Nearest neighbors: 0.02 seconds

Bilinear interpolation: 0.07 seconds

File: SMALL_0009.jpg

Upscaling Results

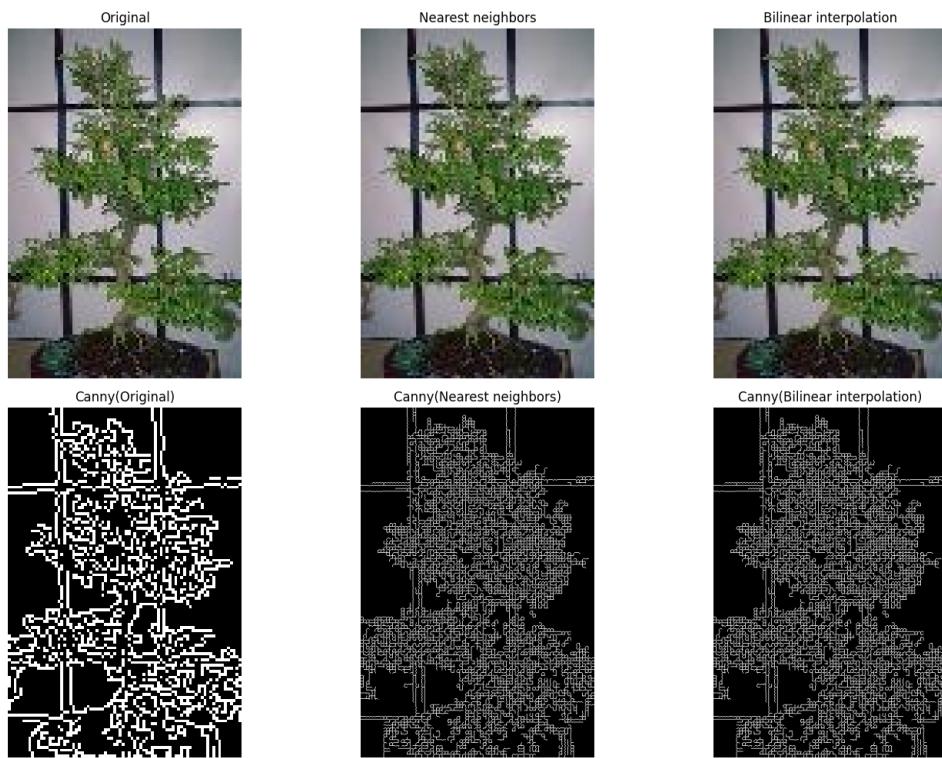
Scale: 200%



Nearest neighbors: 0.00 seconds

Bilinear interpolation: 0.01 seconds

Scale: 500%



Nearest neighbors: 0.02 seconds

Bilinear interpolation: 0.06 seconds