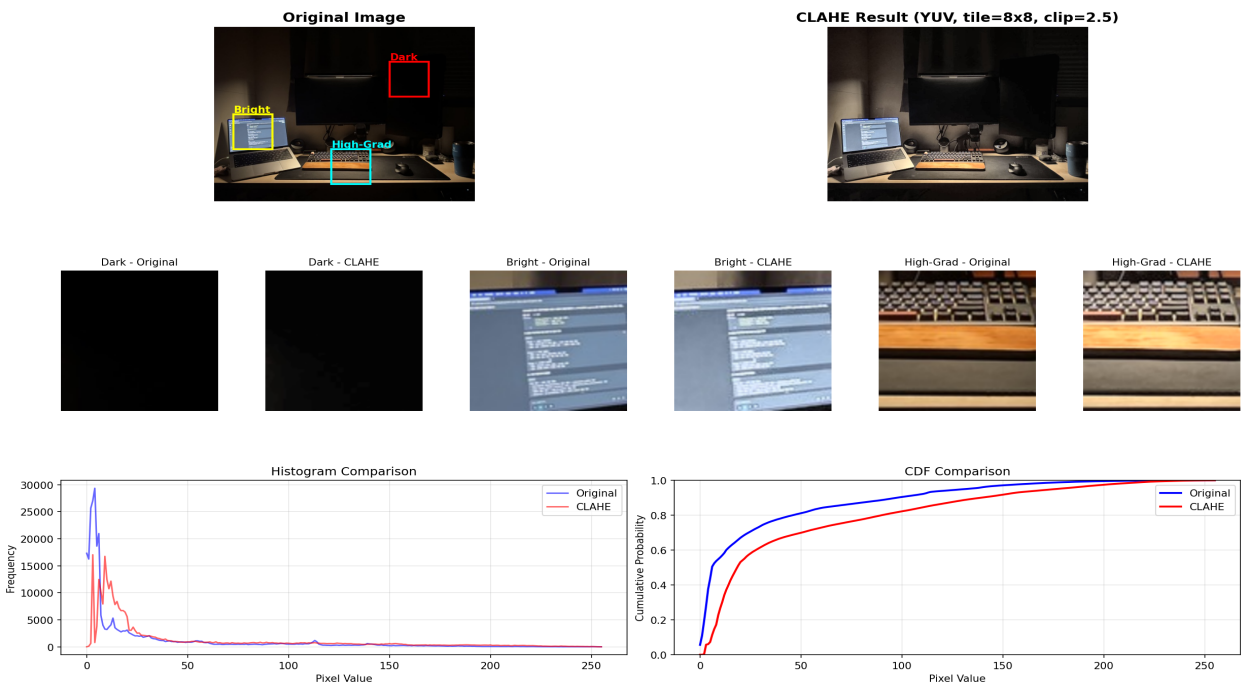


Visual Computing Assignment #1

Image Enhancement Analysis Report

1. Histogram Equalization (CLAHE)

Histogram Equalization Analysis - CLAHE Performance

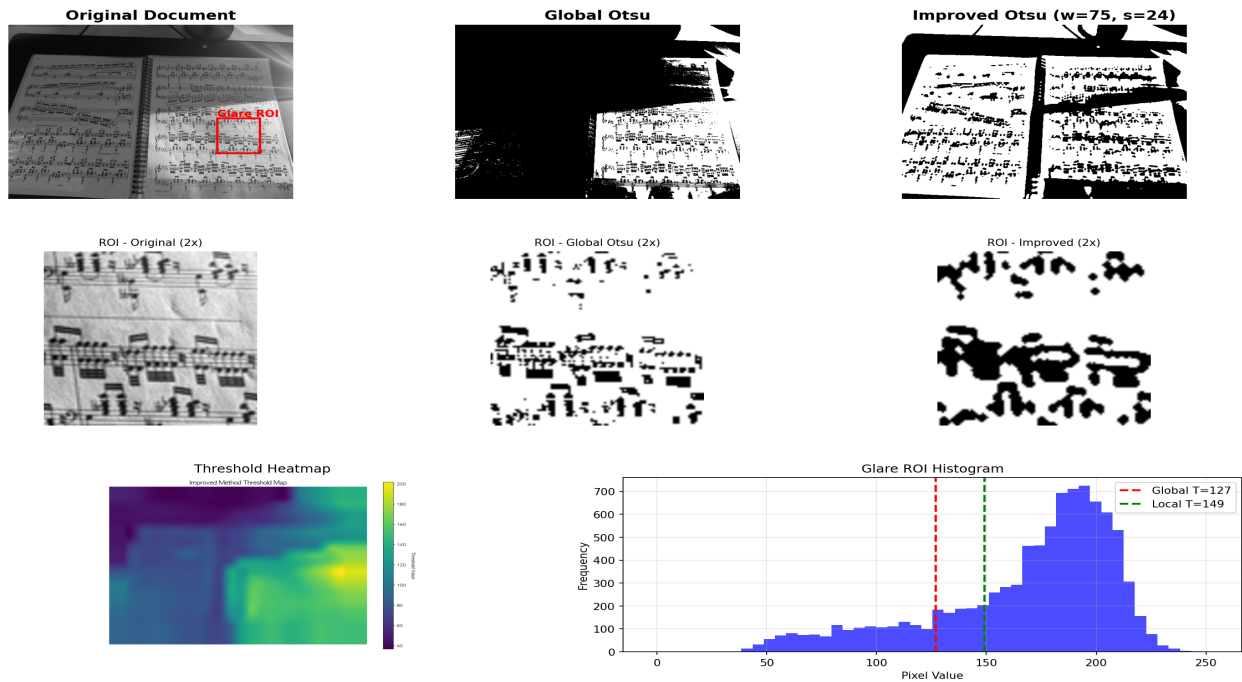


Top 3 CLAHE Parameters:

Rank	Tile Size	Clip Limit	Score
1	8x8	3.0	2.58
2	16x16	3.0	2.58
3	8x8	2.5	2.38

2. Otsu Thresholding (Improved)

Otsu Thresholding Analysis - Glare Handling



Top 3 Otsu Parameters:

Rank	Window	Stride	Pre-blur	Score
1	75	32	1.0	4.97
2	75	32	1.2	4.94
3	75	24	1.0	4.83

3. Conclusions

Histogram Equalization:

- CLAHE with 8x8 tiles and clip limit 3.0 provides best enhancement
- YUV color space preserves natural colors better than RGB
- Adaptive methods outperform global HE for uneven illumination

Otsu Thresholding:

- Window size 75 with stride 32 gives optimal balance
- Pre-blur of 1.0 helps reduce noise without losing detail
- Improved method handles glare regions better than global Otsu