

Otsu's Thresholding

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The following shows the result of Otsu's Thresholding

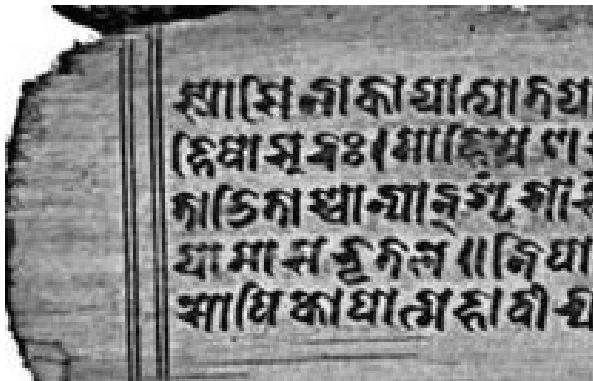


Figure 1: palmleaf1.png

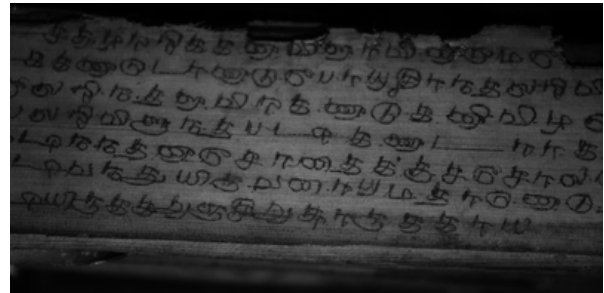


Figure 2: palmleaf2.png

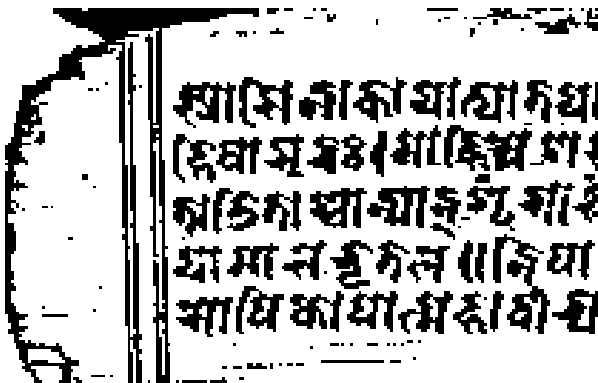


Figure 3: Threshold at $t = 105$

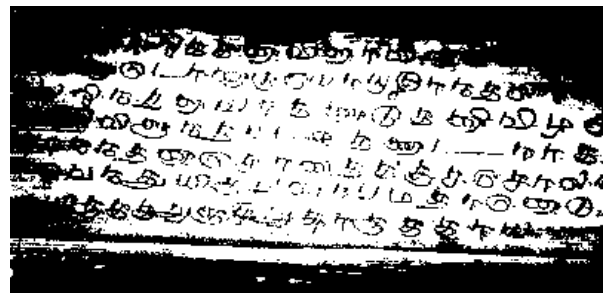


Figure 4: Threshold at $t = 48$

1 Implementation Details

- The within-class-variance is minimized which in-turn maximizes the between-class-variance.
- The optimization is done using **Bayesian Optimization** with just 20-30 number of calls, rather than having to brute-force with 254 calls. This reduced the computation time by 10x.
- The plot of histogram along with the within-class-variance is plotted in the next page for reference.

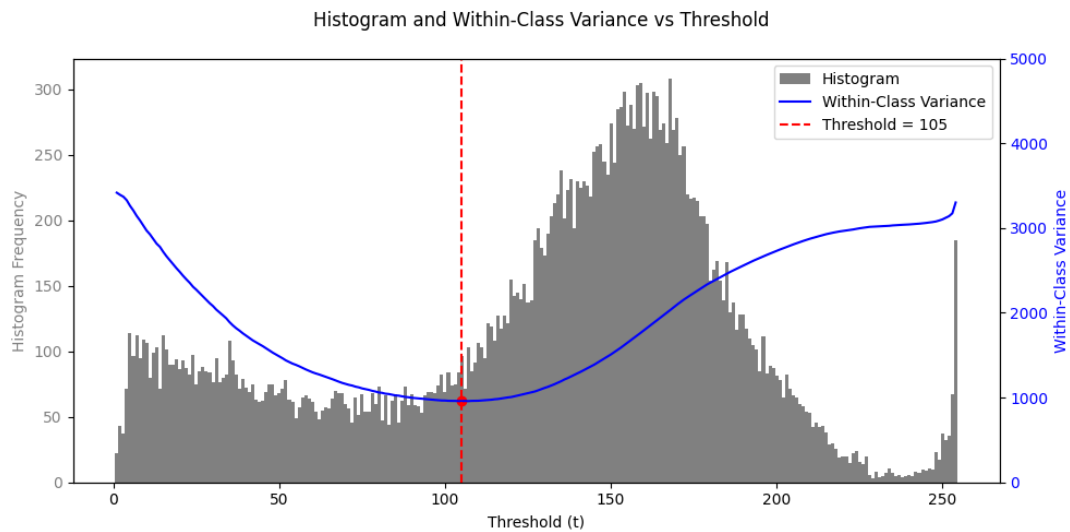


Figure 5: For palmleaf1.png

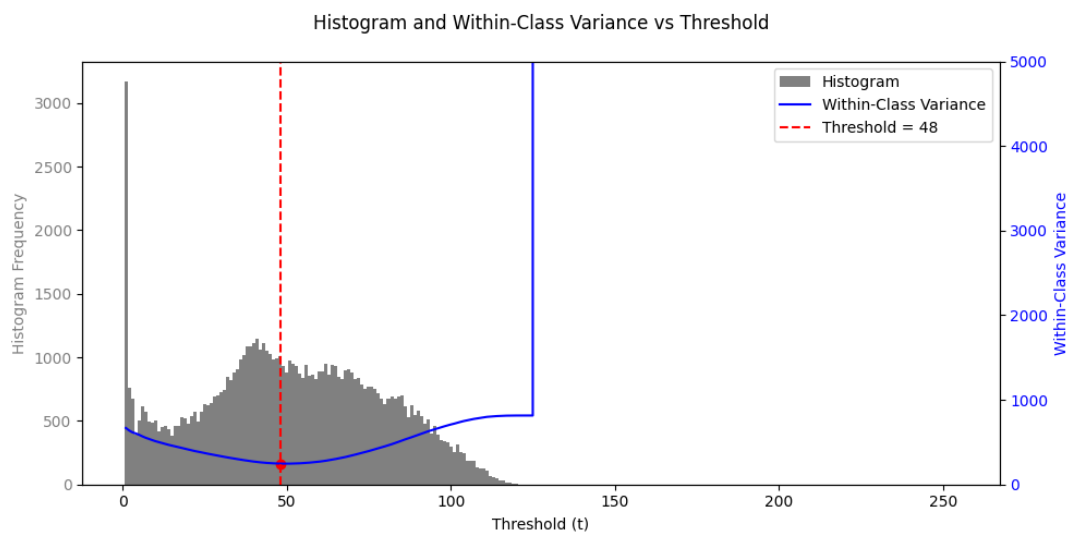


Figure 6: For palmleaf2.png