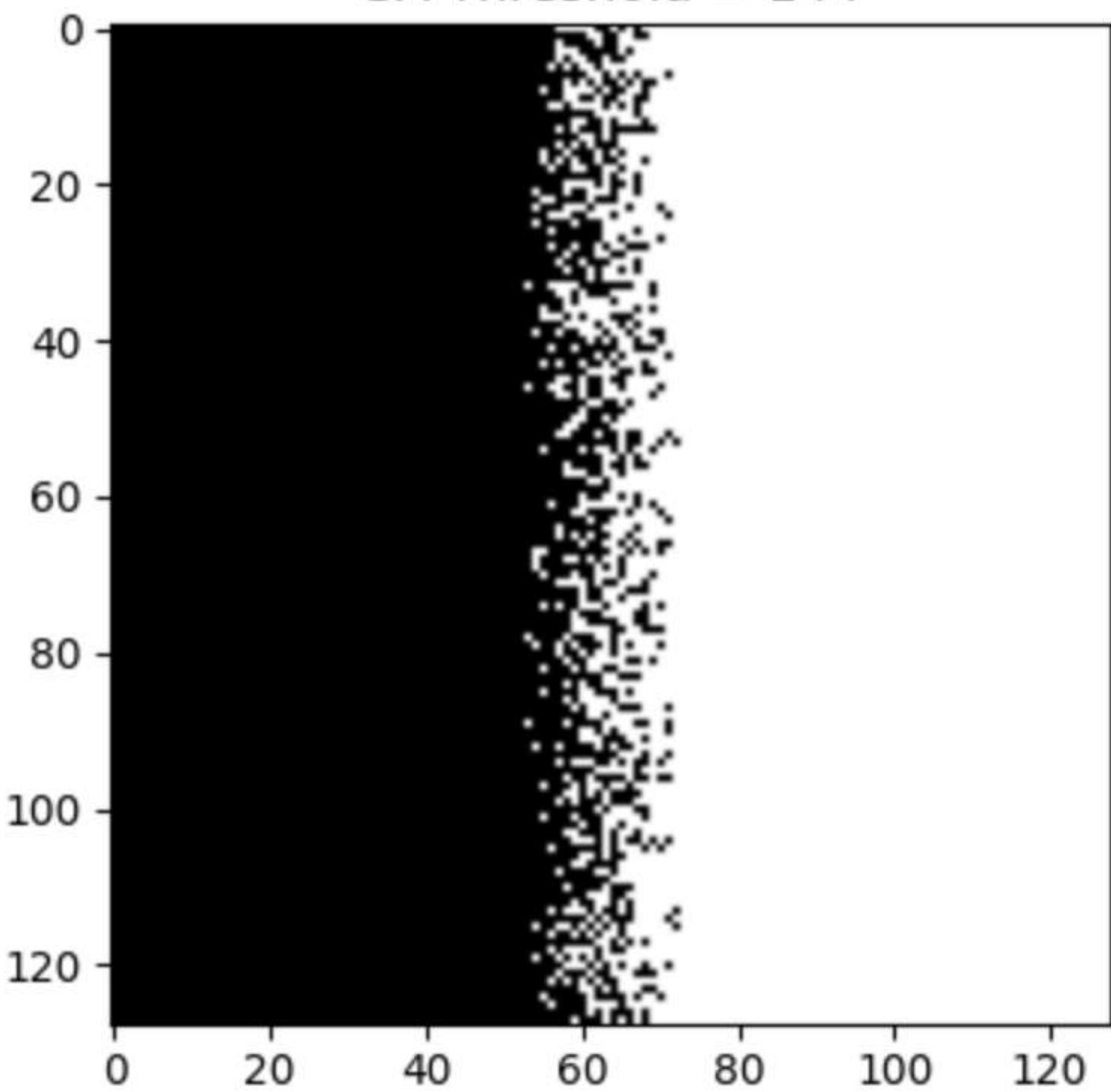
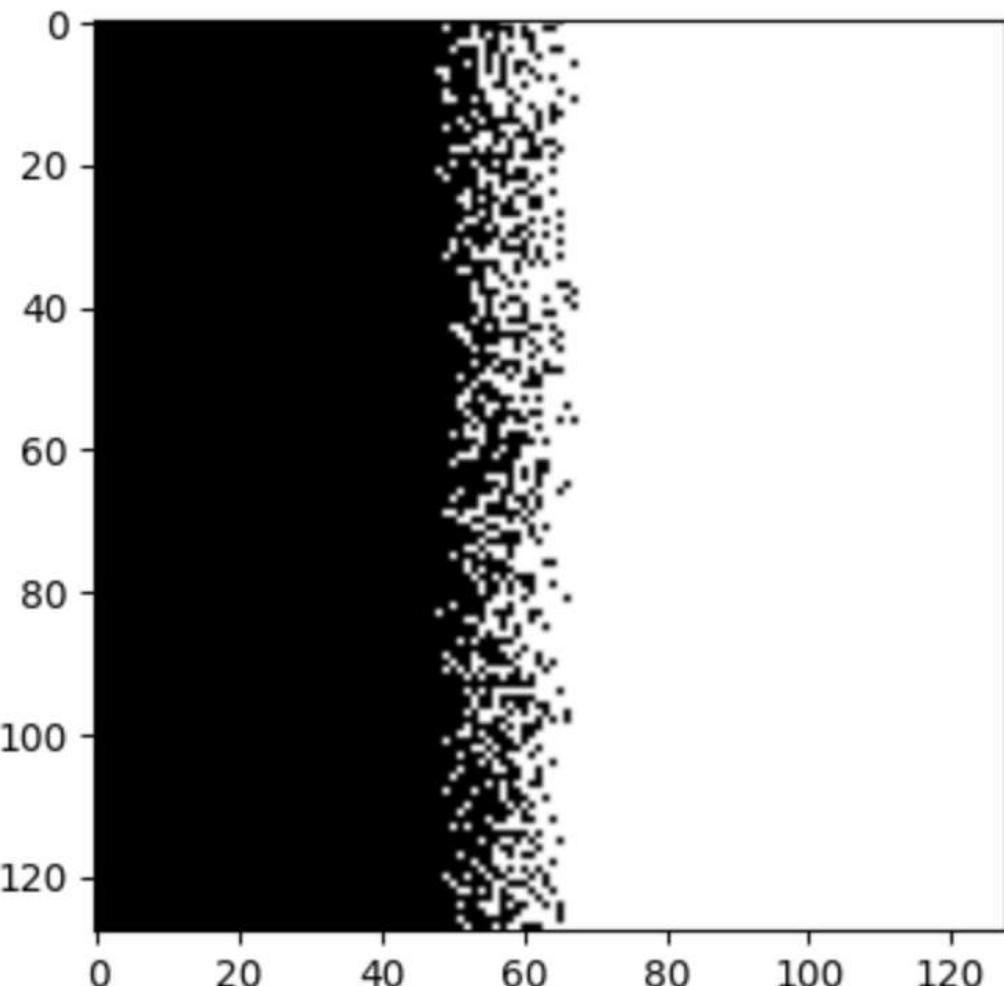


GA Threshold = 144



GAE Rule-based



- * GA Result → Best threshold found = 144
- * GAE Rule-based result → learned rule = $0.65 \times \text{pixel mean} + 40$
- 1) Original image → synthetic gradient + noise
- 2) GA thresholding → clear black & white split at threshold = 144