Enhanced Performance vs. Resource Analysis

GPU Memory
- 2 GB
- 5 GB
- 8 GB

Lightweight DuaSkinSeg
9.2 efficiency
12.6G FLOPs

Enhanced Ensemble
6.8 efficiency
124.8G FLOPs

DuaSkinSeg
7.1 efficiency
47.2G FLOPs

Attention U-Net
6.2 efficiency
89.4G FLOPs

Custom U-Net
8.8 efficiency
6.8G FLOPs

MONAI U-Net
8.5 efficiency
4.2G FLOPs

Key Observations:
- Lightweight DuaSkinSeg offers best efficiency
- DuaSkinSeg achieves highest dice score
- Small models (<10M params) show strong performance
- Enhanced Ensemble trades efficiency for robustness

Dice Score (y-axis): 82.0%, 84.0%, 86.0%, 88.0%

Model Parameters (Millions) (x-axis): 10^1, 10^2

Efficiency Score (colorbar): 6.5, 7.0, 7.5, 8.0, 8.5, 9.0