

Fine-tuning Experiments: A Systematic Search (All attempts underperformed zero-shot baseline)

Exp	Method	Dice Score	Status	Analysis
Exp 1	PathSAM2 + CTransPath Encoder	0.016	[X] Failed	Diverged - Encoder mismatch
Exp 2	SAM2 + LoRA (Rank 8)	0.355	[!] Overfit	Gap: Train 0.8 -> Test 0.35
Exp 3	SAM2 + Focal Loss (15 epochs)	0.372	[!] Overfit	Insufficient data (85 images)
Exp 4	SAM2 + Heavy Augmentation	0.340	[!] Overfit	Augmentation hurt performance
Final	Zero-Shot SAM2 + Box Prompt	0.555	[OK] Best	No training required!

Key Insight: Limited data (85 training images) causes severe overfitting. Zero-shot VFM wins!