

582

FULLY ANNOTATED
CBCT SCANS
OF BOTH JAWS

77

ANATOMICAL
CLASSES IN ONE
LABEL MAP

Teeth

Jawbones

Pulps

Restorations

Pharynx

Canals

532

RELEASED PUBLICLY

+50

HIDDEN TEST · GRAND CHALLENGE

40k+

ANNOTATED OBJECTS
BY 7 EXPERT CLINICIANS

Hidden-test benchmark

U-Mamba2: residual U-Net with a Mamba2 bottleneck and anatomy-aware training.

Model	Average		L/R canals		Teeth		Jawbones		Pulps	
	DSC ▲	HD95 ▼	DSC ▲	HD95 ▼	DSC ▲	HD95 ▼	DSC ▲	HD95 ▼	DSC ▲	HD95 ▼
nnU-Net ResEnc	73.3	78.0	62.2	39.0	80.9	49.2	72.7	86.6	73.4	45.2
nnU-Net	72.3	85.5	63.6	26.1	80.3	56.9	75.0	78.3	73.3	46.8
MedNeXt	69.8	92.4	59.5	38.4	78.9	59.6	65.6	85.6	76.9	23.5
Swin-UNETR	49.5	162.5	43.1	129.2	56.2	129.5	59.8	81.6	50.2	79.4
Primus	60.6	143.6	59.1	32.9	60.6	151.5	73.8	80.2	71.6	13.2
U-Mamba	72.7	84.9	65.0	26.2	80.0	57.3	73.6	89.3	76.2	36.3
U-Mamba2 (ours)	74.1	77.7	64.9	23.7	81.6	49.1	75.0	78.9	74.3	44.0

TRAINED ON
TOOTHFAIRY3

+31.0

DSC on pulps
vs. training on Pulpy3D

+2.3

DSC on TF2 classes
vs. training on ToothFairy2



Dataset



U-Mamba2