

Model Card — Model Modeloguay123

Task: Image-to-Image translation

0. Card Metadata

Creation date: 2025/08/06

Versioning

- **Version number:** 0.5
- **Version changes:** new limitations

DOI: 4567894793743589

1. Model Basic Information

Name: Modeloguay123

Creation date: 2022/08/03

Versioning

- **Version number:** 33.77.4567
- **Version changes:** new page added

DOI: 115483.hh5.4

Model scope

- **Summary:** auto-segmentation model
- **Anatomical site:** Thorax

Clearance

- **Type:** Approved for medical use

Approved by

- **Name(s):** Ana
- **Institution(s):** UCLouvain
- **Contact email(s):** ana@gmail.com

Intended users: Radiation oncologists

Observed limitations: None

Type of learning architecture: Random Forest

Developed by

- **Name:** Silvia
- **Institution(s):** uam
- **Contact email(s):** silvia@uam.es

Conflict of interest: NA

Software licence: apache 2.0

2. Technical specifications

2.1 Model overview

Model pipeline

- **Summary:** CT images are blue
 - **Model inputs:** ['CT']
 - **Model outputs:** ['RTSTRUCT_Acetabulums', 'CBCT']
 - **Pre-processing:** cropping the body
 - **Post-processing:** hole-filling
-

2.2 Learning architecture(s)

Learning architecture 1

Field	Value
Total number of trainable parameters	4000000
Number of inputs	5
Input content	—
Input size	[128]
Number of outputs	1
Output content	—
Output size	[128, 56]
Loss function	MSE
Batch size	—
Regularisation	—
Uncertainty quantification techniques	Monte Carlo dropout

Field	Value
Explainability techniques	LIME

2.3 Hardware & software

- Libraries and dependencies: Pytorch 3.9

3. Training Data Methodology and Information

Fine tuned form

- Model name: NA
- URL/DOI to model card: NA
- Tuning technique: NA

Training Dataset

General information

- Total size: [80]
- Number of patients: 7
- Source: Private dataset from ClinicsX
- Acquisition period: March 2025-August 2025
- Inclusion / exclusion criteria: Males were excluded
- Type of data augmentation: Flipping [left - right]
- Strategy for data augmentation: random

Technical specifications

RTSTRUCT_Acetabulums (model_outputs)

Field	Value
Image resolution	[5.9, 7.6, 3.0]
Patient positioning	Supine
Scan(s) manufacturer and model	NA
Scan acquisition parameters	NA
Scan reconstruction parameters	NA
FOV	NA

CBCT (model_outputs)

Field	Value
Image resolution	[5.9, 7.6, 3.0]
Patient positioning	head to toes
Scan(s) manufacturer and model	NA
Scan acquisition parameters	NA
Scan reconstruction parameters	NA
FOV	[5.9, 7.6]

CT (model_inputs)

Field	Value
Image resolution	NA
Patient positioning	NA
Scan(s) manufacturer and model	NA
Scan acquisition parameters	NA
Scan reconstruction parameters	NA
FOV	NA

- **Reference standard:** NA
- **Reference standard QA:** delineations corrected by 3 doctors

Patient demographics and clinical characteristics

- **Age:** [7.5, 6.8]
- **Sex:** 60% F 40% M

Validation strategy: Cross-validation

Validation data partition: [20%]

Weights initialization: Uniform

Model choice criteria: last epoch

Inference method: single fold

4. Evaluation Data Methodology, Results and Commissioning

1 Siemens sample evaluation

Evaluation date: 2025/08/05

Evaluated by

- **Name(s):** Ana
- **Institution(s):** UCLouvain
- **Contact email(s):** ana@gmail.com
- **Same as 'Approved by':** Yes

Evaluation frame: retrospective

Sanity check: Model tested on a set of known images

Evaluation dataset

General information

- **Total size:** [577, 567]
- **Number of patients:** 7
- **Source:** public dataset from ucm
- **Acquisition period:** March 2023- April 2024
- **Inclusion / Exclusion criteria:** children excluded
- **URL info:** —

Technical specifications

RTSTRUCT_Acetabulums (model_outputs)

Field	Value
Image resolution	[5.9, 7.6, 3.0]
Patient positioning	supine
Scan(s) manufacturer and model	NA
Scan acquisition parameters	NA
Scan reconstruction parameters	NA
FOV	NA

CBCT (model_outputs)

Field	Value
Image resolution	NA
Patient positioning	NA
Scan(s) manufacturer and model	NA
Scan acquisition parameters	NA

Field	Value
Scan reconstruction parameters	NA
FOV	NA

CT (model_inputs)

Field	Value
Image resolution	NA
Patient positioning	NA
Scan(s) manufacturer and model	NA
Scan acquisition parameters	NA
Scan reconstruction parameters	NA
FOV	NA

- **Reference standard:** NA
- **Reference standard QA:** NA
- **Additional information:** NA

Patient demographics and clinical characteristics

- **Age:** [5.9, 7.6]
- **Sex:** 100% F

Quantitative evaluation

Image Similarity Metrics

SSIM (Structural Similarity Index)

Field	Value
Type	SSIM (Structural Similarity Index)
On Volume	AirWay_Dist
Registration	NONRIGID
Sample Data	—
Mean Data	[5.9, 7.6, 3.0, 5.3]
Figure Appendix Label	—

Dose Metrics

GPR (Gamma Passing Rate)

Field	Value
Type	GPR (Gamma Passing Rate)
Metric Specifications	—
On Volume	Bone_Mastoid
Registration	NONE
Treatment Modality	External beam radiation therapy (EBRT) - Protons - Scanning beam single-field optimization
Dose Engine	Collapsed cone convolution
Dose Grid Resolution	[5.9, 7.6, 3.0]
TPS Vendor	RayStation
Sample Data	—
Mean Data	[5.9, 7.6, 3.0, 6.7]
Figure Appendix Label	—

Qualitative evaluation

Evaluators information: —

Likert scoring

- Method: —
- Results: —

Turing test

- Method: —
- Results: —

Time saving

- Method: —
- Results: —

Other

- Method: —
- Results: —

Explainability: —

Citation details: —

5. Other considerations

No other considerations provided.
