Multi-Layer Gaussian Splatting for Immersive Anatomy Visualization

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Anatomy Visualization from CT Scans

Slices

Path Tracing

Anatomy Visualization from CT Scans

Slices

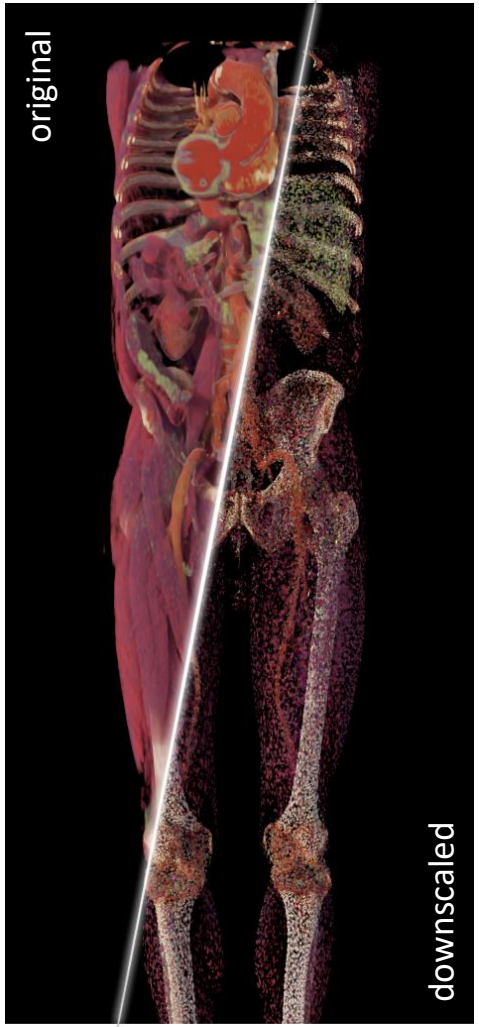
racing

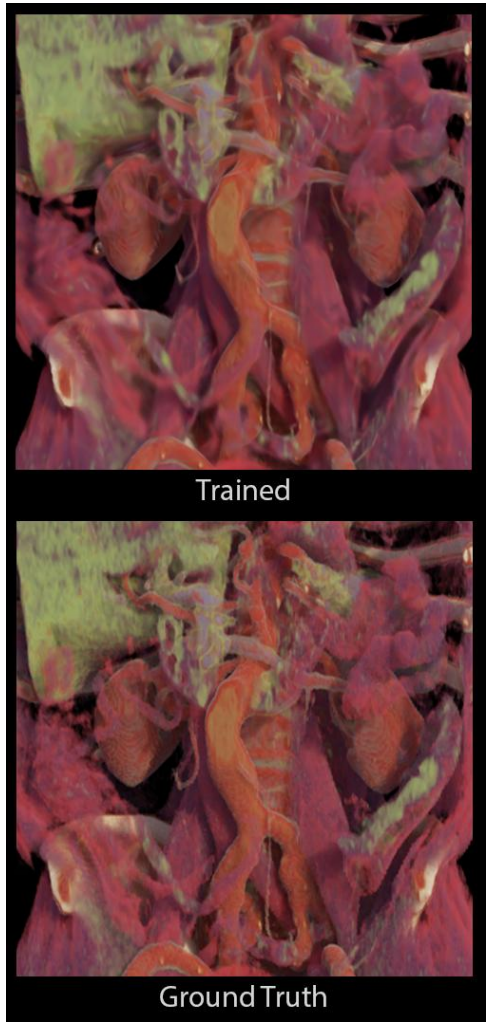
Computational Demand

Approach: Intermediate Representation

Path tracing

- Computationally Expensive
- Barely VR capable
- Needs denoising

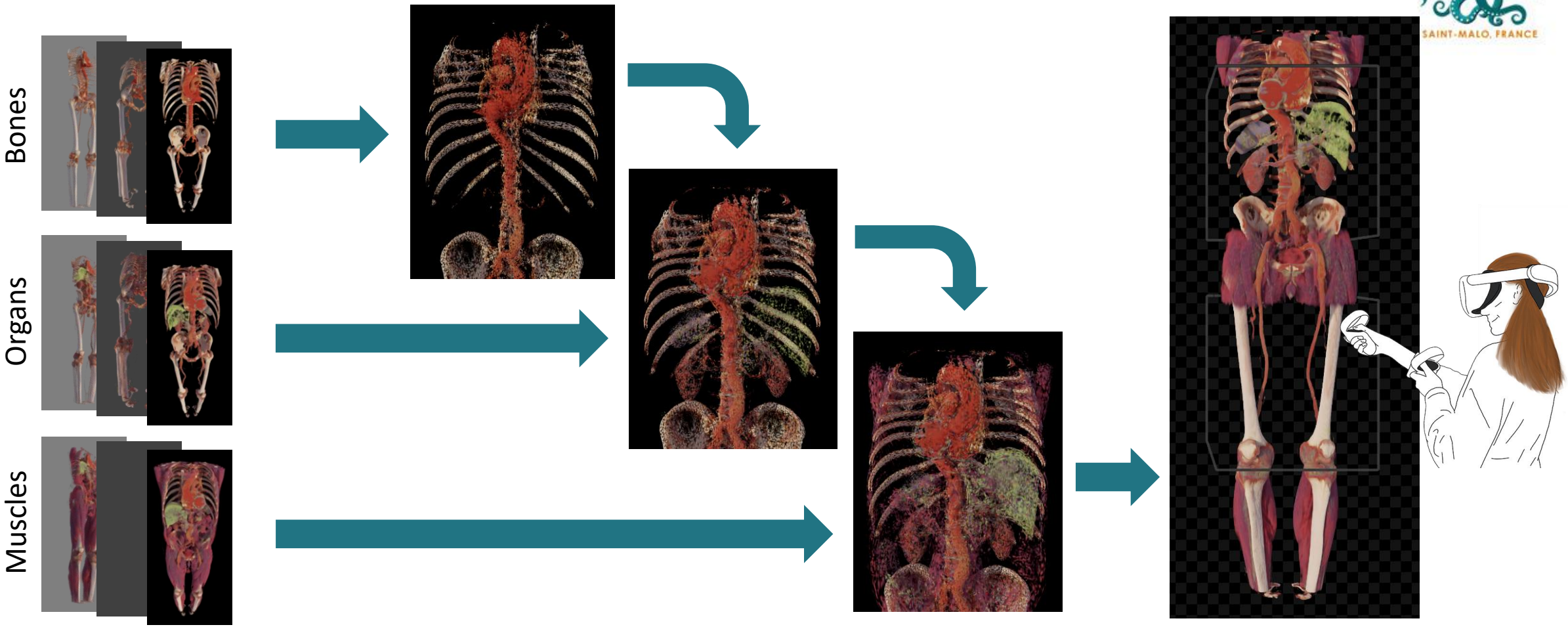




Gaussian Splatting

- High fidelity
- Real-Time VR capable
- Needs Training

Layered Pipeline

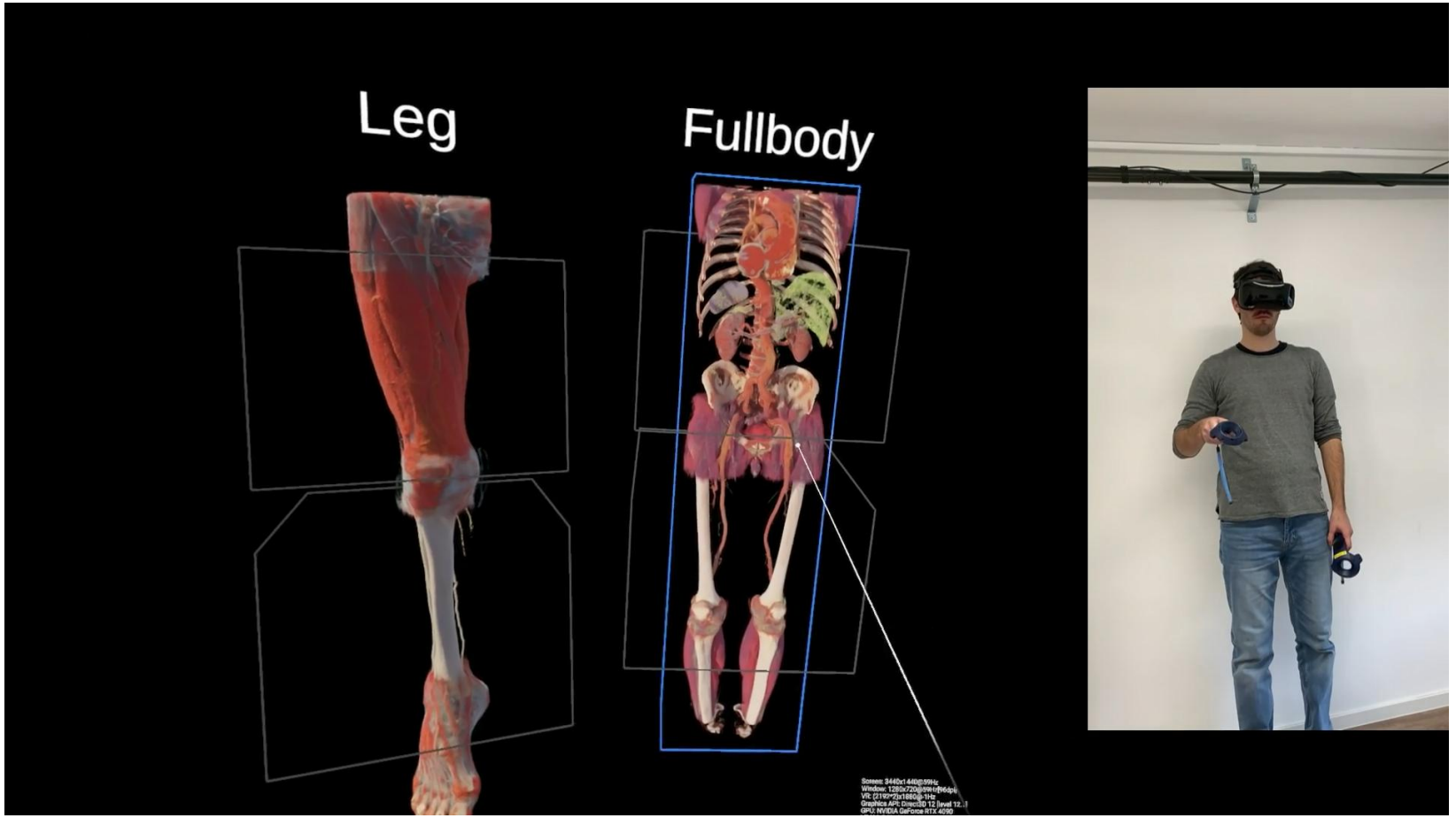


1. Pre-Render viewpoints per layer

2. Consecutively train representation

3. View in Unity

Layered Representation



Interactivity

- Selectively view layer
- Cutting through anatomy

Performance

- Real-time capable on desktop and mobile VR
- Compact representation

Thank you for your attention!

project

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dataset, **code** and **models**:
https://hex-lab.io/Multi-Layer-Gaussian-Splatting-for-Immersive-Anatomy-Visualization/