Master Thesis Opportunity: Reconstruction of Anatomical Shapes from Partial Data Using Gaussian Splatting

📢 Call for Applications

We invite motivated Master's students to join an exciting interdisciplinary research project on **3D shape reconstruction** using **Gaussian Splatting**. The goal of this thesis is to develop methods for reconstructing **complete anatomical structures from incomplete or partial data**, a critical challenge in **computer vision**, **medical imaging** and **biomedical modeling**.

🔬 Research Focus

- Reconstruction of **complete** anatomical shapes from **partial data**
- Gaussian Splatting for anatomical shape completion
- Machine learning and deep learning for shape reconstruction
- Applications in **biomedical imaging, prosthetics, and surgical planning**

🎯 Your Profile

- Master's student in **Computer Science, Applied Mathematics, or a related field**
- Background in **machine learning, 3D computer vision, or shape modeling**
- Experience with **Python** and deep learning frameworks (e.g., PyTorch, TensorFlow)
- Familiarity with **3D data processing, Gaussian Splatting, NeRF, or implicit shape representations** is a plus

📍 What We Offer

- Hands-on experience with **cutting-edge AI techniques** in medical imaging
- Close guidance from experienced researchers
- Access to relevant **medical datasets and computing resources**
- Potential for **publication in top-tier venues**

🗓️ Start Date & Location & Duration

- **Flexible start date in 2025. Location: Berlin or Remote**
- Duration: **~6 months** (can be adapted based on requirements)

📩 How to Apply

Interested? Send your **CV, a short motivation letter, and your transcript of records** to **Jianning Li via jianningli.me@gmail.com** with the subject line: *"Master Thesis Application – Shape Reconstruction"*. For more information: https://jianningli.me/