Remi CHIERCHIA

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Education

Queensland University of Technology **Brisbane, Australia**
CSIRO **Canberra, Australia**
PhD Candidate Feb-23 – Feb-27
Topic: *3D Wound Surface Reconstruction and Segmentation using Neural Radiance Fields (NeRF) and Gaussian Splatting for Healthcare Applications*

KTH Royal Institute of Technology **Stockholm, Sweden**
University of Trento **Trento, Italy**
EIT Digital – Double Master's Degree in Visual Computing Communication – 110 cum laude/110 Sep-20 – June-22
Thesis: *Sub-frame Synchronisation and Motion Interpolation for Panoramic Video Stitching*
Coursework: Signal Processing, Computer Vision, Recognition Systems, Image Forensics, Computer Graphics

Publications

- **Chierchia, R.**, et al. "Multi-View Consistent Wound Segmentation With Neural Fields." *arXiv preprint* (Accepted to ISBI), 2025.
- **Chierchia, R.**, et al. "Wound3DAssist: A Practical Framework for 3D Wound Assessment." *arXiv preprint* (Under Review), 2025.
- **Chierchia, R.**, et al. "SALVE: A 3D Reconstruction Benchmark of Wounds from Consumer-grade Videos." *IEEE/CVF Winter Conference on Applications of Computer Vision (WACV)*, 2025.
- Lebrat, L., et al. "Syn3DWound: A Synthetic 3D Dataset for Wound Bed Analysis." *IEEE International Symposium on Biomedical Imaging (ISBI)*, 2024.
- *Full publication list and resources available at:* github.com/RemiChierchia

Industry Experience

Tracab **Stockholm, Sweden**
Junior Computer Vision Developer - Freelancer Nov-21 – Nov-22
- Comparison of video encoding standards H264-H265 for systems upgrade.
- FFMpeg and OpenCV to assess the accuracy of qualitative, perceptual, and tracking systems (DLLs building).

Skills & Interests

- **Programming & Frameworks:** Python, C++, PyTorch.
- **3D Computer Vision & Graphics:** Neural Radiance Fields (NeRFs), Gaussian Splatting, basic graphics pipeline, 3D reconstruction, mesh processing, semantic segmentation.
- **Medical AI Interests:** Focused on healthcare and biomedical AI applications, medical image analysis, integrating 3D reconstruction with augmented reality, AI-driven clinical decision support, and interdisciplinary solutions combining AR and neural rendering.

Awards & Scholarships

CSIRO Top-Up Scholarship, supporting advanced research collaboration at Australia's national science agency.

Additional Information

Achievement: EIT Digital Master School Scholarship
Technical skills: C++, OpenCV, Python, MATLAB
Language: Italian (native), English
Interests: climbing and mountain sports – applied for the alpine rescue team, football – several years of playing, motorcycles