

Tianfu Wang

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EDUCATION

ETH Zurich

M.S. in Computer Science

Zurich, Switzerland

09. 2021 –

Northwestern University

B.S. in Computer Science and Mathematics, GPA 3.94/4.0

Evanston, IL, USA

09. 2017 – 06. 2021

EXPERIENCE

Photogrammetry and Remote Sensing, ETH Zurich

Research Assistant

07. 2023 –

- Master thesis project, supervised by Prof. Konrad Schindler

Computer Vision Lab, ETH Zurich

Research Assistant

04. 2022 – 07.2023

- Worked with Menelaos Kanakis and Anton Obukhov on neural radiance fields and diffusion models, supervised by Prof. Luc Van Gool

Computational Photography Lab, Northwestern University

Research Assistant

01. 2020 – 09.2021

- Worked with Prof. Oliver Cossairt and Prof. Florian Willomitzer on structured light imaging and eye tracking with deflectometry.
- Worked with Prof. Jack Tumblin on smooth particle hydrodynamics (SPH) fluid simulation and visualization (URG Advanced Student Grant)

PUBLICATIONS

Breathing New Life into 3D Assets with Generative Repainting

Tianfu Wang, Menelaos Kanakis, Konrad Schindler, Luc Van Gool, Anton Obukhov
British Machine Vision Conference (BMVC), 2023 (Oral)

Optimization-Based Eye Tracking using Deflectometric Information

Tianfu Wang, Jiazhang Wang, Oliver Cossairt, Florian Willomitzer
Submitted to IEEE Transactions on Computational Imaging (TCI), in review, 2023

DGInStyle: Domain Generalizable Semantic Segmentation with Image Diffusion Models and Stylized Semantic Control

Yuru Jia, Lukas Hoyer, Shengyu Huang, Tianfu Wang, Luc Van Gool, Konrad Schindler, Anton Obukhov
Preprint, in review, 2023

Accurate Eye Tracking from Dense 3D Surface Reconstructions using Single-Shot Deflectometry

Jiazhang Wang, Tianfu Wang, Bingjie Xu, Oliver Cossairt, Florian Willomitzer
Submitted to Nature Communications, in review, 2023

Accurate and Fast VR Eye-Tracking using Deflectometric Information

Jiazhang Wang, Tianfu Wang, Bingjie Xu, Oliver Cossairt, Florian Willomitzer
Optica Computational Optical Sensing and Imaging, 2023

VR Eye-Tracking using Deflectometry

Jiazhang Wang, Bingjie Xu, Tianfu Wang, Wung Jae Lee, Marc Walton, Nathan Matsuda, Oliver Cossairt, Florian Willomitzer
Optica Computational Optical Sensing and Imaging, 2021

A Mitsuba-based Study on Trade-offs Between Projection and Reflection Based Systems in Structured-Light 3D Imaging

Tianfu Wang, Florian Schiffers, Florian Willomitzer, Oliver Cossairt
Optica Computational Optical Sensing and Imaging, 2021

TALKS

Breathing New Life into 3D Assets with Generative Repainting

British Machine Vision Conference (BMVC)

Aberdeen, United Kingdom, Nov. 2023

Optimization-Based Eye Tracking using Deflectometric Information

124th Annual Meeting of the German Branch of the European Optics Society (DGaO)

Berlin, Germany, May. 2023

A Mitsuba-based Study on Trade-offs Between Projection and Reflection Based Systems in Structured-Light 3D Imaging

Optica Imaging and Applied Optics Congress

Washington, DC, United States, July. 2021

SCHOLARSHIPS

Northwestern University Summer Undergraduate Research Grant Advanced (SURG Advanced)

3500\$ research grant for Modeling and Analysis of Real Time 3D SPH Fluid Simulation on WebGL

Supervised by Prof. Jack Tumblin, 2020

TECHNICAL SKILLS

Programming: Python, C++, PyTorch, PyTorch3D, Blender, OpenCV

Language: Mandarin(Native); English(Proficient)