Yancong Lin
http://yanconglin.github.io/
Postdoc, Computer Vision Lab, Delft University of Technology, The Netherlands
Office: 5.E.040 ⋆ Building 28 ⋆ Van Mourik Broekmanweg 6 ⋆ 2628 XE Delft ⋆ the Netherlands
Phone: (+31)6.5555.4608 ⋆ E-mail: y.lin-1@tudelft.nl

Summary

A dedicated, creative, hands-on researcher on 3D computer vision.
Experience in deep learning, geometric priors, scene understanding, 3D reconstruction.

Experience

1/2022 - 9/2022	Postdoc, Delft University of Technology, The Netherlands

Education

9/2017-4/2022	PhD, Delft University of Technology, The Netherlands
Dissertation:	Data-efficient learning of geometric structures from single-view images
9/2014-6/2017	MEng in Computer Science, Tianjin University, China
9/2010-6/2014	BSc in Physics, Southwest Jiaotong University, China

Projects

1/2022 - 9/2022	**3D reconstruction of aircraft engine blades** Generate photo-realistic 3D models from a single video using NeRF.
3/2021 - 9/2021	**3D symmetry plane detection from single-view images** Incorporated 3D mirror geometry into CNNs; Reduced dependency on big data and achieved real-time inference.
3/2020 - 3/2021	**Geometric priors for deep vanishing point detection** Presented a differentiable mapping from image plane to spherical point clouds; Proposed a learning-based detector robust to domain shift (synthetic - real).
9/2017 - 3/2020	**Deep Hough-Transform line priors** Proposed a stand-alone Hough Transform module for end2end learning; Enhanced the performance of CNNs in a small-data regime.
9/2015 - 1/2016	**Engineering: Multi-view 3D video capture system** Implemented real-time 3D display (16 cameras, 30 FPS, 1920 × 1080).

Key Publications

1. Deep vanishing point detection: Geometric priors make dataset variations vanish. **Y. Lin**, R. Wiersma, S. Pintea, K. Hildebrandt, E. Eisemann and J. C. van Gemert. CVPR 2022.
2. Deep Hough-Transform line priors. **Y. Lin**, S. Pintea, and J. C. van Gemert. ECCV 2020.
3. Investigating transformers in the decomposition of polygonal shapes as point collections. A. Alfieri, **Y. Lin**, and J. C. van Gemert. ICCV-workshop 2021, Best Student Paper.

Skills & Awards

Teaching	Seminar Computer Vision by Learning (MSc, 2018-2021)
Reviewing	CVPR/ICCV/ECCV, Outstanding reviewer at CVPR'22
Programming	Python, C++, CUDA (implemented Conv2d from scratch)
Workshop	Visual Inductive Priors for Data-Efficient Deep Learning Workshop
Awards	National Scholarship, Ministry of Education, China (2016)

Interests

Fitness, Formula 1, Premier League, NBA

June 7, 2022