YIZHI WANG

San Jose, California, USA
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EDUCATION

Peking University, China *Sep. 2017 - June 2022*
Ph.D. in Computer Graphics, Supervisors: Prof. Zhouhui Lian and Jianguo Xiao

Peking University, China *Sep. 2013 - Jul. 2017*
Bachelor in Computer Science

WORKING EXPERIENCE

ByteDance/Tiktok, USA *Nov. 2024 - Now*
Research Scientist

Simon Fraser University, Canada *Jan. 2023 - Nov 2024*
Postdoctoral Fellow, Supervisor: Prof. Richard (Hao) Zhang

Tencent *June. 2021 - Nov. 2021*
Research Intern, Advisor: Dr. Wenhan Luo

RESEARCH INTERESTS

Computer Graphics, Computer Vision, Video Generation, Geometric Modeling, Image/Shape Synthesis

PUBLICATIONS

Yufan Deng, Yuanyang Yin, Xun Guo, **Yizhi Wang**, Jacob Zhiyuan Fang, Shenghai Yuan, Yiding Yang, Angtian Wang, Bo Liu, Haibin Huang, Chongyang Ma. MAGREF: Masked Guidance for Any-Reference Video Generation with Subject Disentanglement. ICLR 2026.

Yizhi Wang*, Mingrui Zhao*, Hao (Richard) Zhang. ACT-R: Adaptive Camera Trajectories for Single-View 3D Reconstruction. 3DV 2026.

Dingdong Yang, **Yizhi Wang**, Konrad Schindler, Ali Mahdavi-Amiri, Hao (Richard) Zhang. GALA: Geometry-Aware Local Adaptive Grids for Detailed 3D Generation. ICLR. 2025.

Yizhi Wang, Wallace Lira, Wenqi Wang, Arash (Ali) Mahdavi-Amiri, Hao (Richard) Zhang. Slice3D: Multi-Slice, Occlusion-Revealing, Single View 3D Reconstruction. CVPR. 2024.

Mingrui Zhao, **Yizhi Wang**, Fenggen Yu, Changqing Zou, Ali Mahdavi-Amiri. SweepNet: Unsupervised Learning Shape Abstraction via Neural Sweepers. ECCV. 2024.

Sai Raj Kishore Perla, **Yizhi Wang**, Arash (Ali) Mahdavi-Amiri, Hao (Richard) Zhang. EASI-Texturing: Edge-Aware Mesh Texturing from Single Image. SIGGRAPH 2024 Journal-Track Paper. 2024.

Yizhi Wang*, Zeyu Huang*, Ariel Shamir, Hui Huang, Hao (Richard) Zhang, Ruizhen Hu. ARO-Net: Learning Implicit Fields from Anchored Radial Observations. CVPR. 2023. (* denotes equal contribution)

Maham Tanveer, **Yizhi Wang**, Arash (Ali) Mahdavi-Amiri, Hao (Richard) Zhang. DS-Fusion: Artistic Typography via Discriminated and Stylized Diffusion. ICCV. 2023.

Yuqing Wang, **Yizhi Wang**, Longhui Yu, Yuesheng Zhu, Zhouhui Lian. DeepVecFont-v2: Exploiting Transformers to Synthesize Vector Fonts with Higher Quality. CVPR. 2023.

Yizhi Wang, Guo Pu, Wenhan Luo, Yexin Wang, Pengfei Xiong, Hongwen Kang, Zhouhui Lian. Aesthetic Text Logo Synthesis via Content-aware Layout Inferring. CVPR. 2022.

Yizhi Wang, Zhouhui Lian. DeepVecFont: Synthesizing High-quality Vector Fonts via Dual-modality Learning. ACM Transactions on Graphics (SIGGRAPH Asia 2021 Technical Paper). 2021.

Yizhi Wang*, Yue Gao*, Zhouhui Lian. Attribute2Font: Creating Fonts You Want From Attributes. ACM Transactions on Graphics (SIGGRAPH 2020 Technical Paper, * denotes equal contribution). 2020.

Yizhi Wang, Zhouhui Lian. Exploring Font-independent Features for Scene Text Recognition. ACM Multimedia. 2020.

Yizhi Wang, Zhouhui Lian, Yingmin Tang, Jianguo Xiao. Boosting Scene Character Recognition by Learning Canonical Forms of Glyphs. International Journal on Document Analysis and Recognition. 2019.

Yizhi Wang, Zhouhui Lian, Yingmin Tang, Jianguo Xiao. Font Recognition in Natural Images via Transfer Learning. International Conference on Multimedia Modeling. 2018.

Jie Chen, Zhouhui Lian, **Yizhi Wang**, Yingmin Tang, Jianguo Xiao. Irregular Scene Text Detection via Attention Guided Border Labeling. Science China Information Sciences. 2019.

RESEARCH PROJECTS

Video Generation — ByteDance USA/Tiktok
Nov. 2024 - Present — *Advisor: Dr. Chongyang Ma*

- Reference-to-Video Generation: Proposed a novel conditioning approach with subject disentanglement for identity-consistent video generation from multiple reference images.
- Video Effect Generation: Built a video-effect system whose effects went viral across countries on TikTok.

3D Shape Reconstruction and Generation — GrUVi, Simon Fraser University
Sep. 2022 - Nov. 2024 — *Advisor: Prof. Richard (Hao) Zhang*

- Introducing Slice3D, a completely new way of solving single-view 3D reconstruction. Instead of going from single- to multi-view, we advocate going from single-view to multi-slice images and then lift them to 3D.
- Proposing a novel shape encoding (Anchored Radial Observation) for learning implicit field of shapes, with an application of surface reconstruction from point clouds.

Font Synthesis — WICT, Peking University
Sep. 2019 - June. 2022 — *Advisor: Prof. Zhouhui Lian*

- Proposing a novel generative model which takes the font attributes as input and synthesizes the corresponding glyph images.
- Proposing a novel method, DeepVecFont, to directly generate vector fonts by exhaustively exploiting the dual-modality information (i.e., raster images and vector outlines).

Layout Synthesis for 2D Graphic Design — Tencent (as an intern)
Jun. 2021 - March. 2022 — *Advisor: Dr. Wenhan Luo*

- Proposing a GAN-based method which learns from the human-designed posters and generates layouts for new content automatically. It has been applied into the automatic poster/cover production for Tencent Video.

Scene Text (Character) Recognition — WICT, Peking University
Jul. 2019 - Jul. 2020 — *Advisor: Prof. Zhouhui Lian*

- Addressing the challenge of font variance in scene text recognition (STR) and proposing a font-independent feature representation method to increase the robustness of STR models.

Font Recognition WICT, Peking University
Jul. 2017 - Jan. 2018 *Advisor: Prof. Zhouhui Lian*

· Proposing an image composition method and a transfer learning scheme for font recognition in the wild.

Scene Text Detection WICT, Peking University
Oct. 2017 - Jan. 2018 *Advisor: Prof. Zhouhui Lian*

· Proposing a novel border-labeling method to segment closely located text instances more precisely.

HONORS AND AWARDS

Outstanding Reviewer, CVPR 2025	2025
Ranked 4/100+ in the Competition of Outstanding PhD Dissertation, Peking University	2022
Merit Student (top 10%), Peking University	2018, 2021
Excellent Student (top 5%), Wangxuan Institute of Peking University	2020, 2021
CETC The 14TH Research Institute Glarun Scholarship (top 10%), Peking University	2018
Excellent Award (top 5%), The 17th Programming Contest of Peking University	2018
Outstanding Undergraduate Dissertation of Peking Univerisity	2017

PATENTS

Chinese font recognition in the wild using a deep neural network
CN Patent App 201810104830.7 (granted)

Text recognition by learning canonical forms of glyphs
CN Patent App 201910716704.1 (granted)

Vector font synthesis via dual-modality learning
CN Patent App 202111555201.4 (granted)

PEER-REVIEWS

Conferences: SIGGRAH Asia (2024), CVPR (2022, 2023, 2024), ICCV (2021, 2023), ECCV (2022 2024), AAAI (2022, 2023, 2024)
Journal: IEEE PAMI, IEEE TVCG, Expert Systems With Applications

TECHNICAL SKILLS

Programming: C/C++, Python, Matlab
Deep Learning Framework: PyTorch, Tensorflow
Tools: Adobe Photoshop/Premiere/Illustrator

TEACHING EXPERIENCE

Elementary Number Theory Spring, 2018
Teaching Assistant EECS, Peking University

Intelligent Optimization Methods Fall, 2019
Teaching Assistant EECS, Peking University