# YIZHI WANG

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#### **EDUCATION**

Peking University, China

Sep. 2017 - June 2022

Ph.D. in Computer Science, Advisor: Prof. Zhouhui Lian

Peking University, China

Sep. 2013 - Jul. 2017

Bachelor in Computer Science

#### RESEARCH INTERESTS

Image/Graphics Generation, Pattern Recognition, Font Generation, OCR, Layout Generation

#### **PUBLICATIONS**

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 EXPERIENCE

#### Font Generation and Glyph Image Synthesis

WICT, Peking University

Sep. 2019 - Present

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 dualmodality information (i.e., raster images and vector outlines).

#### Automatic Layout Generation for Posters

Tencent

Jun. 2021 - Present

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

Jul. 2019 - Jul. 2020

WICT, Peking University

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

Jul. 2017 - Jan. 2018

WICT, Peking University Advisor: Prof. Zhouhui Lian

WICT, Peking University

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

Scene Text Detection

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

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 University	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

Vector font synthesis via dual-modality learning

CN Patent App 202111555201.4

#### PEER-REVIEWS

Conferences: ICCV 2021, AAAI 2022, CVPR 2022, ECCV 2022

Journal: 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

#### REFERENCES

### Zhouhui Lian

Associate Professor, Wangxuan Institute of Computer Technology, Peking University lianzhouhui@pku.edu.cn

### Baoquan Chen

Endowed Boya Professor, Peking University IEEE Fellow baoquan.chen@gmail.com

## Chang Xiao

Research Scientist, Adobe Research changxiao0731@gmail.com

### Wenhan Luo

Research Scientist, Tencent AI Lab whluo.china@gmail.com