

EDUCATION

- **Beihang University** Beijing, China
Bachelor of Science in Software Engineering *Sep. 2012 – Jul. 2016*
- **University of Rochester** NY, USA
Ph.D. of Computer Science *Aug. 2020 –*

EXPERIENCE

- **Megvii** Beijing, China
Algorithm Researcher *Oct 2017 – Present*
 - Fully in charge of design, implementation, and part of the deployment of computer vision algorithms.
 - Published research papers top conferences, and applied for patents on computer vision algorithms.
 - Led, prompted, and collaborated with an algorithm team, driving the progress of team projects.
- **SenseTime** Beijing, China
Cloud Service Engineer *Jul. 2016 – Oct. 2017*
 - Developed and maintained distributed cloud services, including encapsulating algorithms, designing and implementing of APIs.
 - Certificated ability in developing and deploying large-scale distributed systems.
- **Tencent** Beijing, China
Cloud Computing Development Intern *Mar.2015–Jan.2016*
 - Worked in Technology and Engineering group, assisted the development of Tencent Cloud.
 - Maintained and improved resource dispatch modules of cloud controlling system.
 - Optimized the utilization of computing resources by ~15%.

RESEARCH

- **Zhaoyi Wan**, Haoran Chen, Jielei Zhang, Cong Yao, and Jiebo Luo. Facial Attribute Transformers for Precise and Robust Makeup Transfer. Under review.
- **Zhaoyi Wan**, Sutao Deng, Yimin Chen, Cong Yao, and Jiebo Luo. Slender object detection: Diagnoses and Improvements. Under review.
- **Zhaoyi Wan**, Jielei Zhang, Liang Zhang, Jiebo Luo, and Cong Yao. On Vocabulary Reliance of Scene Text Recognition. IEEE/CVF Conferences on Computer Vision and Pattern Recognition (CVPR), Seattle, WA, June 2020.
- Minghui Liao, **Zhaoyi Wan**, Cong Yao, and Xiang Bai. Real-time Scene Text Detection with Differentiable Binarization. AAAI Conference on Artificial Intelligence. 2020(Oral, Co-first author).
- **Zhaoyi Wan**, Minghang He, Haoran Chen, Xiang Bai, and Cong Yao. TextScanner: Reading Characters in Order for Robust Scene Text Recognition. AAAI Conference on Artificial Intelligence. 2020..
- Minghui Liao, Jian Zhang, **Zhaoyi Wan**, Fengming Xie, Pengyuan Lyu, Cong Yao, and X. Bai. Scene text recognition from two-dimensional perspective. AAAI Conference on Artificial Intelligence. Vol. 33. 2019(Oral, Co-first author).
- **Zhaoyi Wan**, Fengming Xie, Yibo Liu, Xiang Bai, and Cong Yao. 2D CTC for Scene Text Recognition. arXiv: 1907.09705.
- **Zhaoyi Wan**, X. Li, Y. Lyu(2016). Introduction to cloud computation. Tsinghua University Press.

SELECTED PROJECTS

- **Unconstrained Facial Makeup Transfer** Beijing, China
As the team leader *Mar.2020 – Nov.2020*
 - Transfer makeup from a reference face to a source face, precisely and robustly.
 - Devise innovative facial attribute transformers for precise facial attribute estimation and application.
 - Integrate spatial transformation into generative models, achieving geometry attributes transfer.
 - Readily generalized to other facial attribute transfer tasks.
- **MegOne: A Unified System for Industrial Inspection** Beijing, China
As the team leader *Nov. 2019 -- Apr. 2020*
 - Accurate and adaptive industrial inspection in combination of classification and segmentation.
 - All-in-one solution, including software and hardware, supporting robust inspection and customizable fine-tuning.
 - Led the design and implementation of core algorithms, including the setting up of shot environment, designing of pipelines, and training of NN models.
 - Achieved 99.9% recall and 99% precision on large-scale test data.
- **MegReader: Flexible Research Framework for Text Detection and Recognition** Beijing, China
Advisor: Dr. Cong Yao *Apr.2019 – Sep.2019*
 - Implemented an effective framework for representative text detection and recognition methods. Configure experiments using YAML files, making it convenient to conduct experiments.
 - Enabled thorough logging features, making it easy to follow and analyze experimental results.
 - Supported distributed training, that was compatible with CPU/GPU for training and inference.
- **Text Recognition Algorithms of Face++** Beijing, China
As the team leader *Dec.2017 — present*
 - In charge of developing text recognition algorithms of the open AI platform Face++, including card recognition, general text recognition, and template-configurable text recognition.
 - Led the upgrade of online algorithms; developed the brand-new template-configurable text recognition algorithm that was robust to unformatted text comprehension.
 - Our algorithms could effectively extract and recognize the text information from irregularly shaped entries such as licenses, tickets, etc.
 - The cloud API has more than 800 million recorded invocations.
- **China Artificial Intelligence Competition** Beijing, China
As the team leader *Mar. 2019 — Jun. 2019*
 - Participated in the text comprehension track in Multimedia Information Recognition Competition held by the Ministry of Industry and Information Technology of China.
 - Ranked 1st in handwriting text spotting.
 - Ranked 2nd in scene text detection and recognition.

AWARD AND PRESENTATION

- **Tencent Internet Creative Programming Competition**, silver medal (2015)
- **Scene Text Detection and Recognition**, Research Talk of Megvii Research Institution (2019)

KEY COMPETENCIES

- **Skills:** Algorithms and advanced data structure, Software engineering, Distributed system design and implementation, Large-scale web service development and deployment, Computer architecture, Computer networks, System design, Software engineering, Programming design patterns, Data mining
- **Programming:** C/C++, Python, Ruby, Java, Golang, Shell, PHP, HTML/CSS, JavaScript, SQL
- **Language:** Mandarin Chinese (native), English (proficient)