Qiyu Dai

📱 (+86)13534865062 • ✉ qiyudai@pku.edu.cn • 🌐 daiqy.github.io

Education

School of Software & Microelectronics, Peking University — **Beijing, China**
Master Student in Computer Technology — *09/2019 - present*
- Research interests: image generation, semantic segmentation.

School of Power and Mechanical Engineering, Wuhan University — **Wuhan, China**
B.S. in Energy Chemical Engineering — *09/2015 - 07/2019*
- Ranking first for consecutive three years. Excellent graduate award.

School of Computer Science, Wuhan University — **Wuhan, China**
Second B.S. in Computer Science — *02/2017 - 07/2019*
- GPA 3.91/4.0, ranking top 5%. Research assistant.

Research Experience

NIS&P Lab, Wuhan University — **Wuhan, China**
Research Assistant — *10/2017 - 06/2019*
- Worked on autonomous driving, semantic segmentation and co-saliency detection, supervised by Prof. Qin Zou.

Publications

Qin Zou, Hanwen Jiang, **Qiyu Dai**, Yuanhao Yue, Long Chen, and Qian Wang. "Robust Lane Detection From Continuous Driving Scenes Using Deep Neural Networks." *IEEE Transactions on Vehicular Technology*, 2019.

Selected Projects

GAN-based Automatic Iris Image Generation — **Peking University**
Machine learning course project — *05/2020 - 06/2020*
- Focused on modeling iris image generation as supervised image-to-image translation, which introduced conditional constraints to perform attribute-controlled synthesis.
- Built an end-to-end system based on pix2pix to handle interactive synthesis and mass-synthesis of iris data.
- Proposed an efficient and fast semi-automatic method for pre-processing iris image data.
- As the team leader, responsible for technology choices, system design, code implementation, etc., and was awarded the *Excellent AI Algorithm Team* by Microsoft Research Asia & ByteDance Expert Committee.

Lane Detection for Continuous Driving Scenes — **NIS&P Lab, Wuhan University**
Research project — *03/2018 - 11/2018*
- Aimed at the problem that lane cannot be accurately detected in extremely-bad driving scenarios of shadow, road mask degradation and vehicle occlusion.
- Proposed to investigate lane detection by using multiple frames of a continuous driving scene, and proposed a new hybrid deep architecture for seamlessly integrating the DRNN with DCNN in a semantic-segmentation manner.
- Demonstrated that the proposed method outperforms the competing methods in lane detection, especially in handling challenging situations.

FUTURE CAMP 2018 — **TAL AI Lab**
The talent training program — *08/2018*

- Participated in the program selected from more than 2,500 applicants (Top 8%).
- Designed a CTPN-based approach for handwritten Chinese text detection, and a 3D-ResNets-based module for video motion analysis, and won the *Excellent Project Award*.
- Built a complete end-to-end system for handwritten Chinese text detection and recognition which converts handwritten Chinese text in images into editable messages, based on the project achievements above.

Skills

- **Languages:** Mandarin Chinese (Native), English (CET-6)
- **Programing Languages:** Python, C/C++
- **Tools:** PyTorch, TensorFlow2, OpenCV3, LaTeX

Awards and Honors

- **Excellent Graduate**, Wuhan University, 2019
- **The Beijing CM Scholarship**, Wuhan University, 2018
- **The Goaland Scholarship**, Wuhan University, 2017
- **Merit Student Award**, Wuhan University, 2017
- **The Cnhili Scholarship**, Wuhan University, 2016
- **The Relations Instruments Scholarship**, Wuhan University, 2016
- **Excellent Student Award**, Wuhan University, 2016, 2018
- **Excellent Student Scholarship**, Wuhan University 2016, 2017, 2018