MINGRUI YU

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GitHub

EDUCATION

Tsinghua University, Beijing, China *2020 fall*
Ph.D. in Control Science and Engineering

Xi'an Jiaotong University, Xi'an, China *08/2016 - Present*
B.Eng.(Honors) in Automation GPA: 4.10/4.3, Ranking: 1/35

RESEARCH EXPERIENCES

Adaptive traffic signal control with deep reinforcement learning *07/2018 - 06/2019*
Advisor: Prof. Yisheng Lv, Institute of Automation, Chinese Academy of Sciences.

- Proposed a DRL algorithm that automatically learns an optimal policy to adaptively determine phase duration.
- Proposed a phase sensitive neural network structure based on DDPG model.
- Developed some interesting training techniques.

Image processing in color+depth (RGB+D) based 3D vision systems *02/2018 - 11/2018*
Advisor: Prof. Meng Yang, Institute of Artificial Intelligence and Robotics, Xi'an Jiaotong University.

- Depth-based stereoscopic image zooming.
- Extension and application of Depth No-Synthesis-Error model for view synthesis in 3D video.
- Color guided depth map restoration for synthesized view quality enhancement.

PATENTS

1. Yisheng Lv, Jiajun Chai, **Mingrui Yu**, Yuanyuan Chen, Gang Xiong, Fenghua Zhu, Feiyue Wang, Traffic signal control method and system with deep reinforcement learning, China, Application Number: 201910629489.1, Date: 12 Jul. 2019.

2. Hongbin Sun, Zhixiong Nan, **Mingrui Yu**, Ping Wei, Linhai Xu, Nanning Zheng, A lane keeping control method for vehicles, China, Application Number: 201810004757.6, Date: 03 Jan. 2018.

AWARDS AND HONORS

Competition
COMAP Mathematical Contest in Modeling, Finalist Winners (Top 0.5%) *2018*

Scholarship
First-class Scholarship at XJTU *2019*
National Scholarship *2018*

ADDITIONAL INFORMATION

Technical Skills	Python, C++, Matlab, LaTeX.
Languages	Chinese (native), English (TOEFL 101).
Hobbies	Playing ping-pong, badminton, tennis; Playing the guitar.