QIWEI ZHANG (张淇玮)

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Education

Institute of Psychology, CAS   **Sep. 2020 – Present**
Doctor of Philosophy (PhD) in Psychology   *Advisor: Prof. Xingshan Li*

Nanjing Normal University   **Sep. 2016 – Jul. 2020**
Bachelor of Science in Applied Psychology   *Advisor: Prof. Jingjing Zhang*
- Comprehensive Assessment: 92/100, rank: top 5%
- Comprehensive Assessment: 92/100, rank: top 5%

Research Interests

Psycholinguistics, Mechanism of Chinese reading, Visual attention

Publications

- Duan, J.*, **Yu, D.***, Li, S. E., Wang, W., Ren, Y., Lin, Z., Cheng, B. (2021). Fixed-Dimensional and Permutation Invariant State Representation of Autonomous Driving. In IEEE T-ITS (under review)

- Duan, J., Ren, Y., Zhang, F., Guan, Y., **Yu, D.**, Li, S. E., Cheng, Bo., Zhao, L. (2021). Encoding Distributional Soft Actor-Critic for Autonomous Driving in Multi-lane Scenarios. in IEEE TNNLS (under review)

  * Equal contribution

Projects

Development of Integrated Decision and Control Framework   **January 2021 – Present**
- Implemented an attention-based model as the decision-making neural networks backbone to deal with the dynamic number of surrounding vehicles, cyclists and pedestrians.
- Trained and improved the driving intelligence iteratively.
- Added sensation noise and the punishment for high order derivatives of the controll command to enhance driving comfort and smoothness.

Technical Skills

Programming: R, MATLAB
Software and Platforms: E-Prime, RStudio, SPSS, Origin, MATLAB, Jamovi

Awards

Excellent Graduates of Tsinghua University	2020
Outstanding Graduation Project in School of Vehicle and Mobility, Tsinghua University	2020
Scholarship of Academic Excellence at Tsinghua University	2017, 2018
Scholarship of Freshmen at Tsinghua University	2016