

# Wu Yuanyuan | Curriculum Vitae



- › Status: Ph.D Candidate, Research Associate
- › Fields: Traffic management and optimization, Reinforcement Learning
- › Tech: Python (Pytorch; TensorFlow), SUMO, Vissim, Matlab, SPSS
- › Interests: Connected and Automated Vehicles, Traffic flow modeling, Dynamic traffic assignment, Parking behavior under CAVs environment

## ››› Experience

- |             |   |   |
|-------------|---|---|
| 2016 - 2020 | <b>Research Associate</b>   | <b>Nanyang Technological University</b> |
|             | <ul style="list-style-type: none"><li>› Tier 2 project: Connected and automated vehicles management at intersections</li><li>› FYP projects: Mentor; Cooperative intersection management for mixed traffic; Safety analysis of active mobility mode; Level of service acceptability matrix re-calibration for active mobility</li></ul> |   |
| 2012 - 2014 | <b>University Counsellor</b>  | <b>Southeast University</b>             |
|             | <ul style="list-style-type: none"><li>› Daily management of student affairs</li><li>› Organization, management and coordination of student activities</li></ul>   |   |

## ››› Education

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|-------------|---|---|
| 2016 - 2020 | <b>Ph.D Candidate</b>   | <b>Nanyang Technological University</b> |
|             | <ul style="list-style-type: none"><li>› Thesis: Intersection management strategies to realise the benefits of new generation vehicles</li><li>› Keywords: Autonomous intersection management; Multi-objective optimization; Mixed traffic; Deep reinforcement learning; Queueing theory; Linear programming</li></ul> |   |
| 2014 - 2016 | <b>Master Degree</b>  | <b>Southeast University</b>             |
|             | <ul style="list-style-type: none"><li>› Urban Transportation Planning and Management, Transit Planning, Shared-parking</li><li>› Outstanding Student Cadre, Alumni Scholarship, Enterprise Scholarship</li></ul>  |   |
| 2008 - 2012 | <b>Bachelor Degree</b>  | <b>Southeast University</b>             |
|             | <ul style="list-style-type: none"><li>› Major in Surveying and Mapping Engineering</li><li>› National Endeavor Fellowship, Outstanding Graduates of School of Transportation</li></ul>  |   |

## ››› Research works

- **Wu, Yuanyuan**, Haipeng Chen, and Feng Zhu, "DCL-AIM: Decentralized coordination learning of autonomous intersection management for connected and automated vehicles," *Transportation Research Part C: Emerging Technologies* 103 (2019): 246-260.
- **Wu, Yuanyuan**, Feng Zhu, "Intersection capacity under mixed traffic environment with connected and automated vehicles." (submitted to *Transportation Research Part C: Emerging Technologies*).
- **Wu, Yuanyuan**, Feng Zhu, "Comparative study on roundabout and intersection management under connected and automated vehicles environment." (Working Paper)
- **Wu, Yuanyuan**, Feng Zhu, "Optimization of multiple conflicting objectives in intersection management for connected and automated vehicles." (Working Paper)