

# Yunxiang Cai

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## Education

- 2018.09-present** PhD student for Computer Science  
**Shanghai Jiao Tong University (SJTU), Shanghai, China**  
Focus on vehicular networks, mobile sensing and mobile computing
- 2014.09-2018.07** Bachelor of Science-Physics  
**Ocean University of China (OUC), Qingdao, China**  
Major in Quantum Communication

## Research Experience

- *Model Fine Tune with Collaborative Manner in VANETs*, SJTU, 2020-present
- *Neighbor Deistribution Estimation in VANETs*, SJTU, 2019-2020
- *Online Angle of Arrival (AoA) prediction in VANETs on a Deep Learning Method*, SJTU, 2019-2020
- *Media Access Control (MAC) Protocol towards Reliable and flexible communication*, SJTU, 2018-2019
- *Solving Schrodinger Equations by using Deep Learning*, OUC, 2017-2018 (Outstanding graduate thesis)
- *The Design, Manufacture and Application of the Core Circuit for Underwater Quantum Communication*, National College Student Innovation and Entrepreneurship Training Program, 2016-2017 (Outstanding Project)

## Publications

- Yunxiang Cai, Hongzi Zhu, Shan Chang, Xiao Wang, Jiangang Shen, Minyi Guo, PeerProbe: Estimating Vehicular Neighbor Distribution with Adaptive Compressive Sensing, to appear in IEEE/ACM Transactions on Networking.
- Yunxiang Cai, Hongzi Zhu, Xiao Wang, Shan Chang and Minyi Guo, "Distributed Neighbor Distribution Estimation with Adaptive Compressive Sensing in VANETs," accepted to appear in proceedings of IEEE INFOCOM, 2021.
- Yifeng Zhu, Yunxiang Cai, Hongzi Zhu and Shan Chang, "DeepAoA: Online Vehicular Direction Finding Based on a Deep Learning Method," in Proceedings of ICPADS, 2019.

## Awards and Honors

- Huawei Scholarship, 2021
- First Prize, C4-Network Technology Challenge, 2021
- IEEE INFOCOM Traval Grant 2021
- Outstanding teaching assistant, introduction to object oriented programming, SJTU, 2018-2020
- Excellent student of Shandong Province, Excellent student of OUC, 2018
- First Prize, National Undergraduate Electronic Design Competition, 2016
- First Prize, Undergraduate Mathematics Competition of Shandong Province, 2015

## References

Available upon request