

## Bangbang Ren

National University of Defense Technology

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Born in Feb, 1994



### Education

- National University of Defense Technology  
Ph.D Candidate in Management Science and Technology 2018 -  
– Information Systems Engineering Laboratory  
– Advisor: Prof. Deke Guo
- National University of Defense Technology  
M.E. in Management Science and Engineering 2015 - 2017  
– Information Systems Engineering Laboratory  
– Advisor: Prof. Deke Guo
- National University of Defense Technology  
B.E. in Automation Engineering 2011 - 2015  
– Advisor: Prof. Deke Guo

### Research Interest

Data Center Network, Segment Routing

Network Function Virtualization, Software Defined Network

Combination Optimization, Algorithm Analysis.

### Publications

#### Journal Paper

- Bangbang Ren, Deke Guo, Guoming Tang, Xu Lin, Embedding Service Function Tree with Minimum Cost for NFV Enabled Multicast, IEEE Journal on Selected Areas in Communications, 37(5):1085-1097, 2019.
- Bangbang Ren, Geyao Cheng, Deke Guo. Minimum Cost Forest for Uncertain Multicast with Delay Constraints, Tsinghua Science and Technology, 24(2):147-159, 2019.
- Bangbang Ren, Deke Guo, Junjie Xie, Wenxin Li, Zhiyao Hu. The Packing Problem of Uncertain Multicasts, Concurrency and Computation: Practice and Experience, 29(16), 2017.
- Yueyue Chen, Deke Guo, Ming Xu, Guoming Tang, Tongqing Zhou, Bangbang Ren. PPTaxi: Non-stop Package Delivery via Multi-hop Ridesharing, IEEE Transactions on Mobile Computing, Accepted to appear, 2019.
- Junjie Xie, Deke Guo, Chen Qian, Bangbang Ren, Honghui Chen. Validation of Distributed SDN Control Plane under Uncertain Failures, IEEE/ACM Transactions on Networking, Accepted to appear, 2019.

- Junjie Xie, Deke Guo, Xiaomin Zhu, Bangbang Ren, Honghui Chen, Minimal Fault-tolerant Coverage of Controllers in Software-defined Datacenter Networks, IEEE Transactions on Service Computing, Accepted to appear, 2018.

#### Conference Paper

- Bangbang Ren, Deke Guo, Guoming Tang, Xu Lin, Yudong Qin. Optimal Service Function Tree Embedding for NFV-enabled Multicast, In Proc. of IEEE International Conference on Distributed Computing Systems (ICDCS), 2018.
- Bangbang Ren, Deke Guo, Junjie Xie, Dongsong Zhang. Delay-Guaranteed Minimum Cost Forest for Uncertain Multicast, In Proc. of IEEE Conference on Parallel and Distributed Systems (ICPADS), 2017.
- Lailong Luo, Deke Guo, Ori Rottenstreich, Xueshan Luo, Richard T. B. Ma, Bangbang Ren. The Consistent Cuckoo Filter, In Proc. of IEEE International Conference on Computer Communications (INFOCOM), 2019.
- Xu Lin, Deke Guo, Yulong Shen, Guoming Tang, Bangbang Ren. DAG-SFC: Minimize the Embedding Cost of SFC with Parallel VNFs, In Proc. of International Conference on Parallel Processing (ICPP), 2018.

#### Awards, Grants & Honours

Second Prize of Mathematical Contest in Modeling for the graduate students of China	2016
Student Travel Grant for APNet'18	2018
College excellent student	2016

#### Skills

- Programming Languages
  - Expert: MATLAB, PYTHON
  - Intermediate: C++,  $\text{\LaTeX}$
- Software
  - Expert: GNU Plot, Mininet
  - Intermediate: PS, MS Office
- Other
  - Enjoy being challenged, hardworking, love fitness