Zhenjie Yang

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Education Background

2015.9-Now	Tsinghua University Advisor: Yong Cui, Professor	Computer Science and Technology	Ph.D. Candidate
2018.9-2019.8	University of Toronto Advisor: Baochun Li, Professor	Electrical and Computer Engineering	Joint Ph.D. Program
2011.9-2015.6	Dalian University of Technology	Network Engineering	Bachelor

Technical Skills

- Research interests: **data center networking**, **cloud computing**, **wireless**, **optimization**
- Skilled in modeling; good at algorithms design; knowledge of basic algorithms on machine learning
- Skilled in C/C++; knowledge of Java/Python programming and Linux
- Have solid knowledge in CS; familiar with the basic data structure and common algorithms
- Get the certificate of CET-4 and CET-6; often do academic communication with foreign professors

Project Experience

2018.1-2019.9 **Service profit optimization in geo-distributed clouds**
- Introduction: Design algorithms to schedule user requests in clouds and improve the service profit of cloud providers
- Contribution: Project leader; propose a framework to solve the service profit maximization problem; design algorithms to schedule user requests efficiently

2017.1-2019.9 **Cost-efficient bulk Transfer scheduling in inter-datacenter networks**
- Introduction: Research on bulk transfer scheduling to save bandwidth cost in Inter-DC WANs
- Contribution: Project leader; problem formulation and analysis; design algorithms to schedule bulk transfers in Inter-DC WANs with lower bandwidth cost

2017.9-2019.9 **Efficient routing schemes in reconfigurable data center networks**
- Introduction: Design hybrid routing schemes in wireless data center networks while taking into account the traffic characteristics and wireless interferences
- Contribution: Project leader; problem formulation and analysis; design algorithms to deal with wireless interference and route data center traffics

2014.9-2018.1 **Novel data center network architecture**
- Introduction: Research on DCN architecture design and combine wired/wireless networks
- Contribution: Principal participant; propose prototype architecture; build testbed and evaluate the effectiveness of the proposed architecture

2015.4-2017.12 **Traffic-aware virtual machine migration in topology-adaptive data center networks**
- Introduction: Design algorithms to reduce the transmission cost of VM migration and communication
- Contribution: Project leader; design algorithms to migrate VMs efficiently based on Lyapunov optimization theory; analyze the effectiveness of our solution

Selected Publications

- "Cost-Efficient Bulk Transfer Scheduling in Inter-DC WANs", ToN, 2019 (**CCF A**)
- "Diamond: Nesting the Data Center Network with Wireless Rings in 3D Space", ToN, 2018 (**CCF A**)
- "Traffic-Aware Virtual Machine Migration in Topology-Adaptive DCN", ToN, 2017 (**CCF A**)
- "Performance-aware energy optimization on mobile devices in cellular network", TMC, 2016 (**CCF A**)
- "Diamond: Nesting the Data Center Network with Wireless Rings in 3D Space", NSDI, 2016 (**CCF A**)
- "Towards maximal service profit in geo-distributed clouds", ICDCS, 2019 (**CCF B**)
- "Achieving Efficient Routing in Reconfigurable DCNs", Submitted to SIGMETRICS'20 (**CCF B**)

Awards

- **National Scholarship**; Comprehensive excellent scholarship of Tsinghua University
- Second Prize in American Mathematical Modeling Competition

Self-Evaluation

- Positive; optimistic; work seriously; excellent innovation and team cooperation ability