

# ANNUAL REPORT 2019

Computer Networks Group  
Institute of Computer Science  
Faculty of Mathematics and Computer Science  
Georg-August-Universität Göttingen

**COMPUTER NETWORKS GROUP**  
**GOLDSCHMIDTSTRASSE 7, 37077 GÖTTINGEN, GERMANY**  
**[HTTP://WWW.NET.INFORMATIK.UNI-GOETTINGEN.DE/](http://www.net.informatik.uni-goettingen.de/)**

December 2019  
Editor: Prof. Dr. Xiaoming Fu

# ANNUAL REPORT 2019

## Computer Networks Group

### Introduction

Founded in April 2007, the Computer Networks Group is devoted to cutting-edge leading research and education programs in the field of network architectures, protocols and applications. This report series intends to review the most relevant and important research results and other achievements and activities performed by the Computer Networks Group. The present report summarizes those of the year of 2019.

### Group Members

Bangbang Ren joined the NET group as a PhD student in Sept 2019. Dr. Osamah Barakat, Dr. Tao Zhao, Dr. Hannes Tschofenig and Dr. Bo Zhao completed their PhD theses in July, September, November, December 2019, pursuing their new career as Network Architect for SDN at Siemens (Germany), faculty member at NDUT (China), distinguished engineer at Arm (UK), and faculty member at Information Engineering University (China), respectively. Dr. Hui Zheng (Ranplan Ltd, UK, April 2019-February 2020), Tan Li (Tsinghua University, China, Dec 2018-Mar 2019) and Mingkai Lin (Nanjing University, China, June-Aug 2019) spent mid-term research visits at NET group, contributing to its research activities. Also, several master and bachelor student assistants worked on various projects and thesis work; they are an important part of the team.

By the end of year 2019, the research group comprises 1 professor, 2 senior researchers/postdoc fellows, 7 PhD students, as well as a couple of master and bachelor students. See Table 1 for detailed information.

Table 1: Member of Computer Networks Group (as of 31.12.2019):

Administrative staff	Head	Senior Researchers	Research assistants/PhD students	Adjunct researchers /visitors
Secretary: T. Bockler  System administrator: G. Krull	Prof. Dr. X. Fu	PD Dr. M. Arumathurai, Dr. Yali Yuan	B. Ren, S. Xu, Y. Shao, J. Zhang, S. Ding, S. Adhatarao, A. Malik (extern)	Yi Li, Xin Gao, Dr. H. Zheng, Dr. Y. Chen, Dr. H. Huang, Dr. A. Prasad, Dr. S. Kulkarni

### Teaching and Supervision

During 2019 the Group has provided the following courses:

#### Lectures:

Computer Networks, 4 ECTS

Introduction to Blockchain Technology, 5 ECTS

Advanced Blockchain Technology, 5 ECTS

Computer Networks, 4 ECTS (exam only)

*NOTE: WS – Winter Semester, SS – Summer Semester, \* - only partly*

WS2018/19, WS2019/20

WS2018/19

WS2019/20

SS2019

### **Exercise classes:**

Computer Networks WS2018/19, WS2019/20

### **Lab courses:**

Practicum Advanced Networking (Data Science Edition), 6 ECTS SS2019, WS2019/20

Practicum Networking Lab, 6 ECTS SS2019, WS2019/20

### **Seminars:**

Adv. Topics in Mobile and Social Communications, 6 ECTS WS2019/20

Adv. Topics in Computer Networking, 6 ECTS SS2019

Internet Technologies, 4 ECTS SS2019, WS2019/20

## **Research Areas and Projects**

The Computer Networks group is committed to explore innovative networking technologies and utilize its full potential, knowledge and experience in the analysis, design, and evaluation of emerging and future network technologies, systems, and applications. Its current main research areas include:

- Architectures, protocols, mechanisms and applications for cloud computing and data centers, including resource and service management, energy efficiency, data delivery, software-defined networks, network function virtualization, cloud systems, applications and services. This has been conducted in collaboration with Microsoft Research, Deutsche Telekom, Nokia Bell Labs, Huawei, Cisco, Ericsson, NEC, UC Riverside, U. Oregon, University of Paris – Marie Curie (Paris 6), BUPT, Fudan University, Tsinghua University, and Nanjing University etc.
- Future Internet architectures and protocols, including information-centric networking, software-defined networking, reliability and congestion control, pub/sub architecture, disaster management, measurement, and related security mechanisms for supporting large-scale content delivery and other applications over the Internet. This area has been in collaboration with UC Riverside, UCLA, Columbia University, University College London, University of Rome “Tor Vergata”, Swedish Institute of Computer Science, KDDI, Panasonic, Cisco, Ericsson, Huawei, NEC, Bell Labs, Osaka University, University of Tokyo, Waseda University, NICT, Fudan University, Tsinghua University, and Nanjing University, etc.
- Social networks/social computing, including socio-aware networking/computing infrastructure, mobile social networks, as well as social behavior studies and social influence, in collaboration with researchers from Göttingen (including sociologists, socio-psychologists, economist, physicists and epidemiologists), nationally (MPI-DS, MPI-SWS, T-Labs, L3S/University of Hannover, University of Frankfurt) and internationally (University Oregon, University of Chicago, University of Cambridge, Bell Labs, Tsinghua University, Fudan University, Nanjing University, University of Science and Technology of China, Huazhong University of Science and Technology, China Telecom, Tcent, etc).
- Mobile computing, pervasive/social sensing and applications e.g., in smart cities and smart mobility/transport scenarios, leveraging machine learning (in particular compressive sensing) and data mining techniques where appropriate, in cooperation with Aalto University, University of Helsinki (Finland), Uppsala University (Sweden), University of Aston, University of Dundee, Ranplan Ltd (UK), IMT Telecom-SudParis, Cisco (France), Hong Kong University of Science and Technology, Tsinghua University, Nankai University, Nanjing University,

University of Science and Technology of China (China), NEC, National Institute of Informatics (Japan), as well as the Chair of Bioclimatology, Chair of Information Management, Chair of Human Resource Management, and Institute of Geography at the University of Göttingen, University Medical Center Göttingen, City Göttingen and Birmingham City Council.

Some funded projects in 2019 include:

- “Detection and prevention of insider data exfiltration in big data environments”, sponsored by DAAD-PPP Australia
- COSAFE – “Cooperative Connected Intelligent Vehicles for Safe and Efficient Road Transport”, sponsored by EU H2020 MCSA-RISE program
- ICN2020 – “Advancing ICN towards real-world deployment through research, innovative applications, and global scale experimentation”, sponsored by EU-Japan H2020 ICT Cooperation program (Coordinated by NET group)
- “Zero-Touch/Automated Network Management with Artificial Intelligence”, funded by Lower Saxony Ministry of Education and Culture (MWK)
- Gift funding on “HTTP2.0+ over 5G/B5G Networks”, sponsored by Huawei Technologies
- “Virtual Network Embedding”, sponsored by CSC Scholarship program
- “Smart Health”, sponsored by CSC Scholarship program
- “Socioeconomic Big Data”, sponsored by CSC Scholarship program
- “Mobile Big Data”, sponsored by CSC Scholarship program

## Publications, Technical Reports and Theses

### Editorials

1. Xiaoming Fu, Hong Huang, Gareth Tyson, Lu Zheng, and Gang Wang, “Social Computing and Big Data Applications”, Guest Editorial, [World Wide Web](#), Special Issue on Social Computing and Big Data Applications, Springer Verlag, Nov 2019.

### Papers in Peer-Reviewed Journals

2. \* Shuai Xu, Xiaoming Fu, Jiuxin Cao, Bo Liu, Zhixiao Wang, Survey on User Location Prediction Based on Geo-Social Networking Data, **World Wide Web Journal** (Springer), accepted.
3. \* Song Yang, Fan Li, Ramin Yahyapour, Xiaoming Fu, Delay-Sensitive and Availability-Aware Virtual Network Function Scheduling for NFV. **IEEE Transactions on Services Computing** (accepted).
4. \* Song Yang, Fan Li, Stojan Trajanovski, Xu Chen, Yu Wang, Xiaoming Fu, Delay-Aware Virtual Network Function Placement and Routing in Edge Clouds, **IEEE Transactions on Mobile Computing**, Sept 2019, DOI: 10.1109/TMC.2019.2942306 10.1109/TMC.2019.2942306
5. \* Kun Qiu, Jin Zhao, Xin Wang, Xiaoming Fu, Stefano Secci: Efficient Recovery Path Computation for Fast Reroute in Large-Scale Software-Defined Networks. **IEEE Journal on Selected Areas in Communications** 37(8): 1755-1768 (2019)
6. \* Kun Qiu, Jing Yuan, Jin Zhao, Xin Wang, Stefano Secci, Xiaoming Fu: FastRule: Efficient Flow Entry Updates for TCAM-Based OpenFlow Switches. **IEEE Journal on Selected Areas in Communications** 37(3): 484-498 (2019)
7. \* Enhuan Dong, Mingwei Xu, Xiaoming Fu, Yu Cao: A loss aware MPTCP scheduler for highly lossy networks. **Computer Networks** 157: 146-158 (2019)

8. \* Song Yang, Fan Li, Meng Shen, Xu Chen, Xiaoming Fu, Yu Wang: Cloudlet Placement and Task Allocation in Mobile Edge Computing. **IEEE Internet of Things Journal** 6(3): 5853-5863 (2019)
9. \* Fei Zhang, Guangming Liu, Bo Zhao, Piotr Kasprzak, Xiaoming Fu, Ramin Yahyapour: CBase: Fast Virtual Machine storage data migration with a new data center structure. **Journal of Parallel and Distributed Computing**, Elsevier, 124: 14-26 (2019)
10. Fei Zhang, Guangming Liu, Bo Zhao, Xiaoming Fu, Ramin Yahyapour: Reducing the network overhead of user mobility-induced virtual machine migration in mobile edge computing. **Software: Practice and Experience** 49(4): 673-693 (2019)
11. \* Lingjun Pu, Xu Chen, Jingdong Xu, Xiaoming Fu: Content Retrieval at the Edge: A Social-Aware and Named Data Cooperative Framework. **IEEE Transactions on Emerging Topics on Computing**, 7(1): 135-148 (2019)
12. \* Osamah L. Barakat, David Koll, Xiaoming Fu: Gavel: A Fast and Easy-to-Use Plain Data Representation for Software-Defined Networks. **IEEE Transactions on Network and Service Management** 16(2): 606-617 (2019)
13. Jar-Der Luo, Jifan Liu, Kunhao Yang, Xiaoming Fu, Big data research guided by sociological theory: a triadic dialogue among big data analysis, theory, and predictive models, **The Journal of Chinese Sociology** 6 (1), 11, <https://link.springer.com/article/10.1186/s40711-019-0102-4>, Dec 2019
14. Tao Zhao, Hong Huang, Xiaoming Yao, Jar-der Luo, Xiaoming Fu, Predicting individual socioeconomic status from mobile phone data: a semi-supervised hypergraph-based factor graph approach, **International Journal of Data Science and Analytics** (Springer). <https://doi.org/10.1007/s41060-019-00195-z>, 2019.

### Papers in Peer-Reviewed International Conferences and Workshops

15. \* Zhenhua Han, Haisheng Tan, Shaofeng Jiang, Xiaoming Fu, Wanli Cao, Francis C.M. Lau, Scheduling Placement-Sensitive BSP Jobs with Inaccurate Execution Time Estimation, **IEEE INFOCOM 2020**.
16. \* Yali Yuan, Sriprya Srikant Adhatarao, Mingkai Lin, Yachao Yuan, Zheli Liu, Xiaoming Fu, ADA: Adaptive Deep Log Anomaly Detector, **IEEE INFOCOM 2020**.
17. \* Abhinandan S. Prasad, Mayutan Arumathurai, David Koll, Yuming Jiang, Xiaoming Fu: OFM: An Online Fisher Market for Cloud Computing. **IEEE INFOCOM 2019**
18. \* Osamah L. Barakat, Pier Luigi Ventre, Stefano Salsano, Xiaoming Fu: Busoni: Policy Composition and Northbound Interface for IPv6 Segment Routing Networks. **IEEE ICNP 2019**
19. Jianhua He, Andrew Radford, Laura Li, Zhiliang Xiong, Zuoyin Tang, Xiaoming Fu, Supeng Leng, Fan Wu, Kaisheng Huang, Jianye Huang, Jie Zhang, Yan Zhang: Cooperative Connected Autonomous Vehicles (CAV): Research, Applications and Challenges. **MobiArch 2019@IEEE ICNP 2019**
20. Shichang Ding, Hong Huang, Tao Zhao, Xiaoming Fu: Estimating Socioeconomic Status via Temporal-Spatial Mobility Analysis - A Case Study of Smart Card Data. **IEEE ICCCN 2019**
21. \* Abhinandan S. Prasad, Mayutan Arumathurai, David Koll, Xiaoming Fu: DMC: A Differential Marketplace for Cloud Resources. **IEEE/ACM CCGRID 2019**: 198-209 (Best paper runner-up)
22. Osamah L. Barakat, Tayyebi Emadina, David Koll, Xiaoming Fu: Paving the Way towards Enterprise SDN Adoption: New Selection Strategies for Hybrid Networks. **IEEE ICIN 2019**: 322-328

### (Extended) Abstracts, Posters and Demos

23. Bo Zhao, Atsuhiko Takasu, Ramin Yahyapour, Xiaoming Fu: Loyal Consumers or One-time Deal Hunters: Repeat Buyer Prediction for E-commerce, **IEEE ICDM 2019 PhD Forum**
24. Yali Yuan, Chencheng Liang, Megumi Kaneko, Lingjun Pu, Xiaoming Fu: Adaptive Fuzzy Game-based Energy Efficient Localization in Underwater Sensor Networks. **SIGCOMM Posters and Demos 2019**: 119-121

### Technical Reports

25. Shichang Ding, Hong Huang, Tao Zhao, Xiaoming Fu: Estimating Socioeconomic Status via Temporal-Spatial Mobility Analysis - A Case Study of Smart Card Data. **CoRR abs/1905.05437** (2019)

## PhD Dissertations

26. Bo Zhao, “Consumer Behavior Analysis and Repeat Buyer Prediction for E-Commerce”, PhD Dissertation, Faculty of Mathematics and Computer Science, University of Göttingen, Göttingen, December 2019 (co-supervised with R. Yahyaipour)
27. Hannes Tschofenig, “A Secure and Privacy-Friendly IP-based Emergency Services Architecture”, PhD Dissertation, Faculty of Mathematics and Computer Science, University of Göttingen, Göttingen, Nov 2019
28. Tao Zhao, “Identification of Online Users' Social Status via Mining User-Generated Data”, PhD Dissertation, Faculty of Mathematics and Computer Science, University of Göttingen, Göttingen, September 2019
29. Osamah Barakat, “Efficient Data Management and Policy Composition for Software-defined Networking”, PhD Dissertation, Faculty of Mathematics and Computer Science, University of Göttingen, Göttingen, July 2019
30. Enhuan Dong, “Multipath TCP for Data Center and Highly Lossy Networks”, PhD Dissertation, Department of Computer Science and Technology, Tsinghua University, Beijing, China, 2019 (co-supervised with Mingwei Xu)

## Master Theses

31. Sven Voigt, Predicting Coziness of Cities Using Commute Data, master thesis, Institute of Computer Science, University of Göttingen, Göttingen, Oct 2019
32. Mingyu Chen, The Evaluation and Optimization of Recommender System in Rating Prediction through Deep Learning Methods, master thesis, Institute of Computer Science, University of Göttingen, Göttingen, Oct 2019
33. Nikolaj Kopp, Affiliation Analysis on Technical Program Committees of Major Computer Science Conferences, master thesis, Institute of Computer Science, University of Göttingen, Göttingen, Sept 2019
34. Robert Tasik, Cooperative Collision Avoidance for Autonomous Driving via Multi-Agent Deep Reinforcement Learning, master thesis, Institute of Computer Science, University of Göttingen, Göttingen, Sept 2019
35. Kangcheng Wu, An analysis of user occupation through Quora, master thesis, Institute of Computer Science, University of Göttingen, Göttingen, Aug 2019
36. Fangxi Deng, Design for an Android App and Data Analysis, master thesis, Institute of Computer Science, University of Göttingen, Göttingen, June 2019
37. Alireza Zarei, Information Centric Incentivized Networking (ICIN), master thesis, Institute of Computer Science, University of Göttingen, Göttingen (Master student of applied statistics), Mar 2019

## Bachelor Theses

38. Dorothea Müller, Inferring Socioeconomic Status of Twitter Users Based on Behavioural and Linguistic Features, bachelor thesis, Institute of Computer Science, University of Göttingen, Göttingen, June 2019

## Scientific Contacts

### Incoming short/mid-term researcher visits

Incoming visitors	Institution (from)	Detailed information	Date
Xin Gao	Tsinghua University, China	Visited NET group for 5 months	Dec 2019-May 2020
Yi Li	Tsinghua University, China	Visited NET group for 3 months	Dec 2019-Mar 2020
Tan Li	Tsinghua University, China	Visiting NET group for 3 months	Dec 2018-Mar 2019
Qingyuan Gong	Fudan University, China	Visited NET group for 1 month	June-July 2019
Mingkai Lin	Nanjing University, China	Visited NET group for 3 months	June-Aug 2019
Prof. Zhiyong Peng	Wuhan University, China	Visiting NET group for 1 month	July-Aug 2019

Wei Jiang	Nanjing Sino-German Institute of Digital Twin Smart Cities	Visiting NET group and City Göttingen for collaboration	Dec 2019
Prof. Noel Crespi, Praboda Rajapaksha	Telecom SudParis, France	Visiting NET group, given an invited talk and discussed collaborations	June 2019
Prof. Haisheng Tan	USTC, China	Visited NET group for 10 days	May 2019
Prof. Huashan Chen	Chinese Academy of Social Sciences, China	Visited NET group for 1 week	May 2019

### Outgoing research visits

Out-going visitors	Institution visited	Detailed information	Date
J. Zhang	Tsinghua University, China	Research visiting Profs. Kaisheng Huang, Jar-Der Luo	Dec 2018-Jan 2019
T. Zhao	University of Technology Sydney, Australia	Research visit	Oct 2018-Feb 2019
T. Zhao	Forward Innovation, Shenzhen, and Tsinghua University, China	Research visit	Nov 2018-Mar 2019
B. Zhao	National Institute of Informatics, Tokyo, Japan	Research visit for 6 months	Mar-Sept 2019
X. Fu	University of Liege, Belgium	Visiting Prof. Laurent Mathy and discussing collaboration	Dec 2019
X. Fu	Fudan University, Nanjing University, Northeastern University, China	Visiting Profs. Yang Chen, Xin Wang (Fudan), Wenzhong Li, Xueqin Min etc (Nanjing), Kejun Wang, Youmei Xiong, Xinbo Sun (NEU). Organizing Sino-German Forum on Social Computing (Nanjing)	Nov 2019
X. Fu	Nanjing University, Central China University, Tsinghua University, China; University of Chicago, USA	Visiting Profs. Xueqin Min, Wenzhong Li (Nanjing), Yaoxue Zhang, Ju Ren (CSU), Jar-Der Luo, Jie Tang (Tsinghua); James Evans (Chicago)	Oct 2019
X. Fu	University of Cambridge, Ranplan Ltd, University of Birmingham, Aston University, Birmingham City Council, Highways England, UK	Visiting Profs. Jon Crowcroft (Cambridge), Jie Zhang (Ranplan), Andrew Howes (Birmingham). Jianhua He (Aston), Andrew Radford (BCC), Thanh Nguyen, Rizwan Shafi (Highways England) etc. and attending EU COSAFE Workshop	July-Aug 2019
X. Fu	Nanjing University, China	Visiting Profs. Wenzhong Li, Xueqin Min, Sanglu Lu, Haijian Liu etc and discuss SGISC collaboration incl. summer camp	June 2019
X. Fu	Nanjing University, Fudan University, Sun Yat-sen University, South University of Technology of China, Gannan Medical University, Tsinghua University, University of Science and Technology of China	Visiting Profs. Xiang-Yang Li, Haisheng Tan (USTC), Yang Chen, Xin Wang, Jin Zhao (Fudan), Wenzhong Li (Nanjing), Yiqin Lu (SUTC), Xu Chen, Zhi Zhou (SYSU), Kaisheng Huang, Jar-Der Luo, Yuezhi Zhou (Tsinghua), Xiaofeng Zhou etc (GMU)	Mar/Apr 2019
X. Fu	Victoria University, Monash University, Deakin University, La Trobe University, RMIT, University of Technology Sydney, University of Queensland, Australia	Visiting Profs. Hua Wang, Yanchun Zhang (VictoriaU), Joseph Liu (Monash), Shang Gao (Deakin), Yang Xiang (Swinburne), Tao Gu (RMIT), Ling Chen, Longbin Cao (UTS), Hongzhi Yin, Michael Bruenig (UQ) etc and giving some talks, discussed possible collaborations.	Feb 2019

## Conferences, events and meeting participations and presentations

Participant	Conference/event	Detailed information	Date
X. Fu	Meeting City Göttingen leaders	Discussing collaborations on smart cities	June, Aug, Nov, Dec 2019
X. Fu	Workshop on AI for Science, Frankfurt Institute of Advanced Studies, Germany	Giving an invited talk	Nov 2019
B. Zhao	IEEE ICDM 2019, Beijing, China	Attending the conference, presenting a paper at PhD Forum	Nov 2019
X. Fu	CCF CNCC 2019, Suzhou, China	Giving a keynote at Symposium on Intelligent High-Performance Networks	Oct 2019
X. Fu	Sino-German Symposium on Representation Learning, Beijing, China	Giving an invited talk	Oct 2019
X. Fu	IEEE ICNP 2019, Chicago, USA	Presenting a paper at the main conference and a paper at MobiArch 2019 workshop	Oct 2019
X. Fu	31 <sup>st</sup> Academia Europaea Anniversary Meeting, Barcelona, Spain	Attending the meeting	Oct 2019
X. Fu	Project meeting at Cisco Systems France, Paris, France	Organizing EU LANTERN project consortium meeting	Sept 2019
M. Arumaithurai	EU-Japan ICN2020 final project review, Tokyo, Japan	Organizing the review meeting	Sept 2019
X. Fu, M. Arumaithurai	“Deutsch-Chinesisches Logistikforum” at Fraunhofer IML, Dortmund, Germany	Attending the conference and meeting Markus Stute, Timucin Korkmaz, and Matthias Parlings for potential collaboration	Sept 2019
Y. Yuan	ACM SIGCOMM 2019, Beijing, China	Attending the conference; presenting a poster	Aug 2019
X. Fu	International Conference on Social Computing, Beijing, China	Giving a keynote, launching new international journal “Journal of Social Computing”; organizing the Sino-German Workshop on Social Computing	Aug 2019
S. Voigt, X. Fu	DCHAN-Engineering Researcher-Alumni-Conference 2019: Renewable Energy and E-Mobility, RWTH Aachen, Germany	Attending the meeting and giving a talk	July 2019
X. Fu	IEEE ICCCN 2019, Valencia, Spain	Presenting a paper	July 2019
X. Fu	Nanjing High-Tech Innovation Week 2019, Nanjing, China	Presenting a keynote	June 2019
X. Fu	IFIP Networking 2019, Warsaw, Poland	Attending the meeting, presenting IFIP Networking 2020 on behalf of the organization committee	May 2019
X. Fu, T. Bockler, and other NET members	11 <sup>th</sup> Sino-German Professors’ Forum, Göttingen	Organizing the forum	May 2019
X. Fu, A. Prasad	IEEE INFOCOM 2019, Paris, France	Presented a paper; (X. Fu) giving a keynote at ICCN workshop and meeting IFIP Networking 2020 organizers@LIP6	Apr 2019
X. Fu	GI/ITG/IEEE NetSys 2019, Munich	Chairing a session “Mobile Networking”	Mar 2019
O. Barakat	IEEE ICIN 2019, Paris, France	Presenting a paper	Mar 2019



## News Press Releases

Source	Detailed information	Date/Edition
Nanjing University press news	<a href="#">南京大学-哥廷根大学合作35周年暨中德法学研究所成立30周年庆典举行</a>	Nov 2019
Tsinghua University press news	<a href="#">2019社会计算国际会议在清华大学召开</a>	Aug 2019
Univ Göttingen press news	<a href="#">Conference on German-Chinese Cooperation</a>	May 2019

## Awards

- Distinguished Fudan Scholar 2019, Fudan University, China (Xiaoming Fu)
- [IEEE TCSC Outstanding Dissertation Award 2019 \(Sameer Kulkarni\)](#)
- IEEE/ACM CCGrid 2019 Best Paper Runner-Up (Abhinandan Prasad, Mayutan Arumathurai, Xiaoming Fu)
- IEEE ICDM 2019 Student Traveling Grant (Bo Zhao)

## Professional Services (X. Fu unless noted)

### University Services

- International Officer - Computer Science, Faculty of Mathematics & Computer Science, University of Göttingen
- Substitution Member of Faculty Board, Faculty of Mathematics & Computer Science, University of Göttingen
- Board member, Institute of Computer Science, University of Göttingen
- Director, [Sino-German Institute of Social Computing](#), University of Göttingen
- Steering Board Member of International Master/PhD program “Internet Technology and Information Systems (ITIS)”, University of Göttingen
- Speaker of Doctoral program “PhD in Computer Science” (PCS) program, University of Göttingen
- Chair of Admission Committee for “Master in Applied Computer Science” program, University of Göttingen
- Examiner for Master’s program of “Economics and Business Management”, University of Göttingen
- Coordinator of Planet-Lab membership for University of Göttingen

### Elected and Appointed Positions

- Vice Director, Center for Social Network Research, Tsinghua University, Beijing, China
- Distinguished Fudan Scholar, Fudan University, China
- Guest Professor, Nanjing University, China
- Guest Professor, Northeastern University, China
- Advisory board, Shanghai Computer Science Society Internet Technical Committee, China
- Chair, IEEE Communications Society Internet Technical Committee’s Special Interest Group (SIG) on Information Centric Networking (Mayutan Arumathurai)
- Grant Evaluator: DFG, Fulbright Programs, NSFC, RGC, etc.

- Board Member, GDPCH (Gesellschaft für Deutsche Professoren Chinesischer Herkunft e.V.)

### Conference organization

- Steering Committee Chair, ACM/IEEE SIGMOBILE International Workshop on Mobility in the Evolving Internet Architecture (MobiArch)
- Steering Committee, IEEE INFOCOM 2019-2020 International Workshop on Intelligent Cloud Computing & Networking (ICCN)
- Steering Committee, IEEE ICDCS 2019-2020 International Workshop on Network Meets Intelligent Computations (NMIC)
- General Co-Chair, IEEE HotICN 2019
- Poster Co-Chair, ACM SIGCOMM 2019

### Technical Program Committees

- TPC Co-Chair, IFIP Networking 2020
- TPC Co-Chair, IEEE NewIP@INFOCOM 2020
- TPC Member, IEEE INFOCOM 2019-2020
- TPC Member, Elsevier Computer Communications (COMCOM) Journal (Mayutan Arumaiturai)

### Journal Editorship

- Founding Co-Editor-in-Chief, Journal of Social Computing (co-sponsored by IEEE and Tsinghua University Press)
- Technical Editor, IEEE Communications Magazine
- Associate Editor, IEEE Transactions on Network and Service Management
- Associate Editor, IEEE Transactions on Network Science and Engineering
- Associate Editor, IEEE Networking Letters
- Area Editor, Elsevier Computer Communications Journal
- Associate Editor, Springer-Nature Computer Science
- Associate Editor, Chinese Journal of Electronics
- Guest Co-Editor, International Journal of Distributed Sensor Networks (IJDSN), Special Collection on Indoor Localization, Activity Recognition and their Applications, SAGE Publishing
- Guest Co-Editor, World Wide Web Journal, Special Issue on Social Computing and Big Data Analytics, Springer

### Previous (Bi)Annual Reports of NET Group

- [2018](#), [2016-2017](#), [2015](#), [2014](#), [2013](#), [2012](#), [2011](#), [2010](#), [2009](#), [2007-2008](#)

7

*Enjoy reading and look forward to seeing you in 2020!*