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Education, Employment and Work Experience

- 2018-2019 DAAD Visiting Faculty at the Institute for Sustainable Industries and Liveable Cities (ISILC), Victoria University, Australia
- 2014-2015 DAAD Visiting Faculty at the Department of Information Technology, Uppsala University, Sweden
- 2009 Fulbright Scholar Visiting Professor at Department of Computer Science, UCLA, USA
- 2007-2008 DAAD Visiting Faculty at Department of Computer Science, Columbia University, USA
- 2010-2012 Dean for Academic Affairs – Computer Science, Faculty of Mathematics and Computer Science, University of Göttingen
- Since 2007 University Professor of Computer Science and Head of Computer Networks Group, University of Göttingen
- Since 2005 Visiting/Guest Professor at Columbia U. (2008, 2009), UCLA (2009), U. Oregon (2020), USA; U. Cambridge (2005, 2007, 2019), Aston U. (2019), UK; Uppsala U. (2014, 2015), Sweden; Sorbonne U. (2014, 2016), France; Tsinghua U. (2010-), Nanjing U. (2010-), Hong Kong PolyU (2015), China; U. South Australia (2008), Victoria U. (2018, 2019), Australia
- 2003-2005 Specialist Task Force Expert (STF 256 & STF 276), [European Telecommunications Standards Institute](#), Sophia Antipolis, France
- 2002-2007 Assistant Professor of Computer Science, University of Göttingen
- 2000-2002 Member of Scientific Staff, [Telecommunications Networks Group](#), [TU Berlin](#), Germany
- 2000 PhD in Computer Science, [Tsinghua University](#), Beijing, China
- 1997-2000 Research Assistant, [Department of Computer Science](#), [Tsinghua University](#), China
- 1997 Master's degree in Computer Science (with honors), [Northeastern University](#), China
- 1995-1997 Research Assistant, [Department of Computer Science](#), Northeastern University, China
- 1994 Bachelor's degree in Industrial Automatic Instrumentation, [Department of Automatic Control](#), Northeastern University, China

Awards and Honors

- 2022 IEEE Communications Society Internet Technical Committee Outstanding Service Award
- 2022 IEEE Fellow (for contributions to resource management in edge computing and networking)
- 2021 ACM Distinguished Member (for outstanding scientific contributions to computing)
- 2019 Distinguished Member of IEEE INFOCOM 2019 Technical Program Committee
- 2018 Member of Academia Europaea (The Academy of Europe)
- 2017 Fellow of Institution of Engineering and Technology (IET)
- 2014-2015 IEEE Distinguished Lecturer (Communications Society)
- 2019 Best Paper Award Finalist, IEEE/ACM CCGrid 2019
- 2017 Best Paper Award Finalist, IEEE LCN 2017
- 2017 Best Paper Award, IEEE/ACM 9th Workshop on Hot Topics in Planet-Scale Mobile Computing and Online Social Networking (HotPOST 2017)
- 2016 Best Paper Award Finalist, ACM 10th International Workshop on Mobility in the Evolving Internet Architecture (MobiArch 2016)
- 2014 Best Paper Award, ACM 1st Conference on Information-Centric Networking (ICN 2014)
- 2013 Best Paper Award, IEEE Int'l Workshop on Local & Metropolitan Area Networks (LANMAN 2013)
- 2009 Fulbright Scholar Visiting Professor, UCLA, USA (Awarded by the US Department of State)
- 2009 Changjiang Scholar Visiting Professor, Tsinghua University, China
- 2005 Univ Göttingen Foundation Council's Prize for Exceptional Publications by Young Scientists

Professional Activities

Leaderships in Scientific Communities Chair (2011-2013) and Awards Committee Chair (2014-2017) of Internet Technical Committee (ITC), IEEE Communications Society (ComSoc) and the Internet Society (ISOC)

Vice Chair (2010-2012), Secretary (2008-2010) of IEEE ComSoc Technical Committee on Computer Communications (TCCC)

Election committee (2019), IEEE ComSoc Technical Committee on Green Communications and Computing (TCGCC)

Award Committee (2021-2022): IEEE ComSoc CNOM Young Professional Award (YPA)

Coordinator, Chief Scientist and Steering Committee Chair: EU FP7 MobileCloud, GreenICN, CleanSky projects; EU H2020 ICN2020 project

Expert Group: EU H2020 EU-IoT project

Co-Founder, Workpackage Leader & Steering Committee Member: EU FP6 ENABLE, MING-T and VIDIOS projects; EU H2020 COSAFE project

International Research Grant Committees EU FP7 (2012) and Horizon 2020 (2014), DFG (2015-now), National Science Foundation (2021), Research Foundation – Flanders, Belgium (2012), Swedish Foundation for Strategic Research (2009, 2011), Italian Ministry for University and Research (2016, 2021), Cyprus Research Promotion Foundation (2017, 2018), Research Grants Council of Hong Kong (2010-2021), Chilean National Science and Technology Commission (2018).

Scientific Editorial Board Founding Co-Editor in Chief, Journal of Social Computing (2020- , IEEE);

Technical Editor, IEEE Communications Magazine (2013-2020), IEEE Network (2020-);

Founding Associate Editor, IEEE Networking Letters (2018-2021), Springer/Nature Computer Science (2019-2021)

Associate Editor, IEEE Transactions on Network and Service Management (2011-); IEEE Transactions on Network Science and Engineering (2019-2021)

Area Editor, Elsevier Computer Networks (2012-2015), Computer Communications (2008-2020);

Guest Editor of IEEE Communications Magazine (Feature Topic on Information-Centric Networking Security, Nov. 2018; Feature Topic on Mobile Cloud Computing, Mar. 2015), IEEE Network (Special Issue on Interplay between Machine Learning and Networking Systems, Nov 2021; Special Issue on Implications and Control of Middleboxes in the Internet, Sept/Oct. 2008), IEEE Transactions on Network Science and Engineering (Special Issue of The Nexus Between Edge Computing and AI for 6G Networks, 2022), Elsevier Computer Networks (Special Issue on Measurement-based Optimization of P2P Networking and Applications, Feb. 2012), Computer Communications (Special Issue on Online Social Networks, Jan. 2016), Springer World Wide Web Journal (Special Issue on Big Data Analytics and Social Computing, Nov. 2019), Wiley International Journal of Communication Systems (Special Issue on Mobile Internet: Content, Security and Terminal).

Conference Organization & Tech. Program Committees General (Co-)Chair of ACM SIGCOMM APNet'21, IEEE International Conference on Smart City Innovations (SCI)'21, IEEE HotICN'19, ACM ICN'16, IEEE ICNP'13, IEEE P2PNet'10;

TPC (Co-)Chair for WISA'21, IFIP Networking'20, IEEE NIPAA@ICNP'20-'21, NewIP@INFOCOM'20, ACM ERCNetworking@SIGCOMM'18, IEEE HotICN'18, IEEE/ACM/VDE/GI NetSys'17, ACM CFI'16, IEEE CloudNet'13, ACM HotSocial@KDD'12, IEEE ICCN'12-AIC, ICCCN'10-ISAP, GLOBECOM'09-NGNI, ACM MobiArch'07-'08@SIGCOMM, MobiArch'12@MobiCom, HotPlanet@MobiSys'09, NVWS@KiVS'09, DFG-JSPS Workshop on Future Networks & Mobile Sensing'15...;

TPC Member/Session Chair for many conferences, incl. ACM CoNEXT, ANCS, ICN, ACM Conference on Online Social Networks (COSN), IEEE INFOCOM, ICNP, ICDCS, IWQoS, CloudCom, CCW, SIAM International Conference on Data Mining (SDM), IFIP Networking, etc.;

Workshops Co-Chair: ACM SIGCOMM'18, MobiCom'10 & MobiHoc'10; IEEE ICNP'16;

Keynotes Co-Chair, NoF'22;

Publicity Co-Chair: IEEE ICNP'11, IWQoS'10, ICNP'09;

Publications Chair: ACM COSN'13;

Poster Co-Chair: ACM SIGCOMM'19;

PhD Forum Chair: 33rd Int'l Teletraffic Congress (ITC 2021);

Steering Committee Member/Chair: ACM COSN (2013-2014), MobiArch (chair, 2007-now), HotPlanet (2010-2014), IEEE Global Internet Symposium (chair, 2011-2013), INFOCOM-NOM (2014), INFOCOM-ICCN (2019-2022), ICNP-ICAV (2021), ICDCS-NMIC (2019-2020), ICDCS-SocialMeta (2022), HotICN (2018-2020), CCW (2008-2012).

Keynote/ Tutorials/ Panelist	Keynote at IEEE LCN'21 , BigCom'21 , QShine'20 , ICSC'19,'20, IEEE INFOCOM'19-ICCN , IEEE HotICN'17, ACM MobiHoc-HotPOST'16 , IEEE Global Internet Symp.'15 , IFIP Networking'12 , etc; Panelist/panel chair at LANMAN'15 , ICNP'14 & PhD Forum, KDD'12-HotSocial , MobiCom'10 Outrageous Opinions , MobiCom'09-MICNET , KiVS'09 ; Tutorials at EU CleanSky ITN Summer School'16-'18, IFIP Networking'06 , IEEE ICCCN'11 , Frontiers of Journalism & Communication Summer School'12 at Renmin University of China.
PhD Supervision and External Review	Successfully supervised 33 PhD theses to completion (and 7 are ongoing), among which 7 got highest "Summa Cum Laude" grade, and 16+ became faculty members worldwide (USA, Germany, Ireland, India, China, Pakistan etc). External PhD thesis review: UBC, Canada (2019), UPMC (2016, 2018), U Oslo (2010, 2017), Waterford Inst. of Technology (2016), Telecom SudParis (2015, 2020, 2022), Aalto U (2014, 2015), U Liège (2012), VU Brussels (2011), U Helsinki (2010), Dublin City U (2010), Tsinghua U (2010), IIIT Delhi (2022)

University Services

Since 2019	Member of Center for Statistics (ZfS) , University of Göttingen
Since 2019	Member of Campus Institute of Data Science (CIDAS) , University of Göttingen
Since 2019	Speaker/Director, PhD Program in Computer Science & Chair of Admission Committee, Master Program in Applied Computer Science, University of Göttingen
Since 2015	Founding Director, Sino-German Institute of Social Computing , University of Göttingen
2011 – 2021	Steering Committee of international master study program 'Internet Technology and Information Systems (ITIS)', Universities of Göttingen, Hannover, Braunschweig & Clausthal <ul style="list-style-type: none"> • <i>Regulation setup, admission, study regulation & degree decision making & implementation</i>
2010 – 2012	Dean for Academic Affairs – Division of Computer Science, Faculty of Mathematics and Computer Science, University of Göttingen <ul style="list-style-type: none"> • <i>Responsible for various academic training activities: teaching, supervision, admission and degree regulations & implementation, representing the faculty on the university board;</i> • <i>Initiated and established the internationalization of research-oriented MSc program in "Applied Computer Science"</i>
2010 – 2011	Faculty Search Committee, Junior Professorship "Computer Security", University of Göttingen
Since 2012	International Officer – Computer Science, Faculty of Mathematics and Computer Science, University of Göttingen <ul style="list-style-type: none"> • <i>Established and coordinating cooperation/exchange agreements with several universities in USA (Columbia U, UCLA), France (UPMC), Italy (U Roma2), Greece (Alexander TEI of Thessaloniki), Norway (NTNU), Japan (National Institute of Informatics), China (Tsinghua U, Peking U, Nanjing U, Hong Kong PolyU);</i>
2009 – 2021	Board Member of Institute of Computer Science, Faculty of Mathematics and Computer Science, University of Göttingen <ul style="list-style-type: none"> • <i>Involved in various financial, administrative, education & personnel development</i> • <i>Involved in departmental strategic planning and implementation</i>
Since 2007	Head of Computer Networks Group, Institute of Computer Science, University of Göttingen <ul style="list-style-type: none"> • <i>Offering undergraduate and graduate-level courses as well as student projects and thesis in the area of Internet technologies, mobile computing and social data analytics;</i> • <i>Responsible for managing the continuous financial and human resources;</i> • <i>Educating young researchers (MSc/PhD students, postdocs, visitor etc) for future career.</i> • <i>Responsible for research (including grant raising) activities of the group's interest, e.g.,</i> <ul style="list-style-type: none"> ○ <i>Initiated a number of EU proposals and successfully acquired ~10 (4 as coordinator);</i> ○ <i>Submitted an ERC Starting Grant (2007) and Advanced Grant (2022);</i> ○ <i>Currently participating in the DFG Collaborative Research Center proposal "Embracing Heterogeneity with Data Science", responsible for project "Exploring Heterogeneous Spatio-Temporal Data Measured on Multiple Scales";</i> ○ <i>Participated in the DFG Excellence Cluster "LUSci – Integrative Land Use Science for Sustainable Development" proposal (which entered the last round), responsible for proposing a new professorship and a new competence center on "land-use data science" at University of Göttingen;</i> ○ <i>Participated in German Internet Institute (DII) initiative proposal led by L3S (www.l3s.de) (which entered the last round), responsible for proposing one new professorship on "social computing" at University of Göttingen;</i>

- Acquired funding support from DAAD (in collaboration with Columbia University/USA, Uppsala University/Sweden, Victoria University/Australia, Fudan University/China), Humboldt Foundation, DFG, ministries, and industries on research projects and academic exchanges.

2021 – 2022 Hosting a Humboldt Fellow (Dr. Tingting Yuan)

2014 – 2016 Hosting a Humboldt Fellow (Dr. Xu Chen, now Full Professor of computer science and vice director of State Joint Engineering Lab of Digital Home Interactions at Sun Yat-sen U., China)

2012 – 2014 Hosting a Humboldt Fellow (Dr. Wenzhong Li, now Full Professor at Nanjing U., China)

Since 2005 Thesis Committee Member of “PhD in Computer Science” program, University of Göttingen

Since 2002 Member of [Center for Computational Science \(ZFI/ZAI\)](#), University of Göttingen

Ongoing and Supervised Doctoral Students

Candidates and thesis titles	Start	End	Further career of the candidate
Huang, Yanlong	2022	TBD	
Li, Zhengze	2021	TBD	
Wölk, Fabian	2020	TBD	
Gutierrez-Marques, Pablo (extern.)	2020	TBD	Researcher at MPI for Solar System Research
Wang, Yunxiao (co-supervise with Yong Wang, MPI for Dynamics and Self-Organization)	2020	TBD	
Ren, Bangbang	2019	TBD	
Wang, Weijun: Sensing, Communication and Analysis in UAV Monitoring Systems	2019	08/2022	Postdoc at Computer Networks Group, University of Göttingen
Alice Jiaying Kou (co-supervise with Hua Wang@Victoria U., Australia): Analysing Housing Price in Australia with Data Science Methods	2018	2022	Project Manager at the Australian Urban Research Infrastructure Network (AURIN)
Zhang, Jiaquan User identification and community exploration via mining big personal data in online platforms	2017	2021	Research Engineer at Huawei Technologies, Beijing, China
Shao, Yachao Imbalance Learning and Its Application to Medical Datasets	2018	2021	Assistant Professor at Chinese Academy of Sciences, China
Xu, Shuai (co-supervise with Jiuxin Cao, Southeast University) Key Techniques of User Geo-Location Prediction with Big Data	2017	2020	Assistant Professor at Nanjing University of Aeronautics and Astronautics, China
Ding, Shichang User Attribute Inference via Mining User-Generated Data	2016	2020	Assistant Professor at Information Engineering University, China
Adhatarao, Sripriya Srikant PHOENIX: A Premise to Reinforce Heterogeneous and Evolving Internet Architectures with Exemplary Applications (“ summa cum laude ”)	2015	2020	Senior Researcher at Huawei Europe Research Center, Munich, Germany
Zhao, Bo (co-supervise with Ramin Yayahpour): Consumer Behavior Analysis and Repeat Buyer Prediction for E-Commerce	2015	2019	Assistant Professor at Information Engineering University, China
Zhao, Tao: Identification of Users’ Social Status via Mining Online Big Data	2015	2019	Assistant Professor at NUDT, China

Barakat, Osamah Lutf: Efficient Data Management and Policy Composition for Software-defined Networking	2015	2019	Network Architect-SDWAN at Siemens AG, Germany
Dong, Enhuan (co-supervise with Mingwei Xu, Tsinghua University): Multipath TCP Flow Scheduling in Data Center Networks and Lossy Networks	2015	2019	Research Assistant Professor at Tsinghua University, China
Kulkarni, Sameer: Resource Management for Efficient, Scalable and Resilient Network Function Chains (“ summa cum laude ”; recipient of <i>IEEE TCSC Outstanding PhD Dissertation Award 2019</i>)	2015	2018	Assistant Professor at IIT Gandhinagar, India
Prasad, Abhinandan: Automated Provisioning of Fairly Priced Resources	2015	2018	Assistant Professor at National Institute of Engineering, Mysore, India
Silvestro, Alessio: Architectural Support for Implementing Service Function Chains in the Internet	2015	2018	Senior Research Scientist at Philip Morris International, Bologna, Italy
Zhang, Fei (co-supervised with Ramin Yahypour): Challenges and New Solutions for Live Migration of Virtual Machines in Cloud Computing Environments	2014	2018	Research Assistant Professor at Chinese Academy of Sciences, China
Stango, Antonietta (co-supervised with Dario Farina, University Medical Center Göttingen/ Imperial College London): Increasing the Robustness of Active Upper Limb Prostheses	2013	2016	Researcher at IRCS San Giovanni di Dio Fatebenefratelli Clinical Research Center, Brescia, Italy
Huang, Hong: Triadic Closure and Its Influence in Social Networks. A Microscopic View of Network Structural Dynamics (‘summa cum laude’)	2012	2016	Associate Professor of Computer Science, Huazhong University of Science and Technology, China
Xu, Ren (co-supervised with Dario Farina, University Medical Center Göttingen/Imperial College London): Short-Latency Brain-Computer Interface Using Movement-Related Cortical Potentials	2012	2016	Senior Scientist and Group Leader at g.tec Medical Engineering GmbH, Austria
Pu, Lingjun (co-supervised with Jingdong Xu, Nankai University): On Service Design and Key Issues in 5G Edge Network Architecture	2011	2016	Associate Professor of Computer Science, Nankai University, China
Tao, Narisu: Data Driven Network Analysis and Applications	2011	2015	Data Scientist at Volkswagen Data:Lab, Munich, Germany
Zhang, Yuan: Dynamic Resource Scheduling in Cloud Data Centers	2011	2015	Associate Professor at Chinese University of Communications (CUC), Beijing, China
Koll, David: Towards a Robust and Secure Decentralized Online Social Network (‘summa cum laude’)	2011	2014	Senior Data Scientist at Continental Co. Ltd., Hannover, Germany
Chen, Jiachen: A Content-Oriented Architecture for Publish/Subscribe Systems (‘summa cum laude’)	2010	2015	Research Engineer at Meta, USA
Jiao, Lei: Online Social Network Data Placement over Clouds (dissertation: ‘summa cum laude’)	2010	2014	Assistant Professor of Computer Science at University of Oregon, USA
Zhu, Konglin: Social-based Data Routing Strategies in Delay Tolerant Networks	2010	2014	Associate Professor at Beijing University of Posts & Telecommunications, China
Tschofenig, Hannes (extern, ARM Ltd): A Secure and Privacy-Friendly IP-based Emergency Services Architecture	2009	2019	Distinguished Engineer at ARM Ltd. Also: Member of Internet Architecture Board (IAB) (2010-2014)
Hameed, Sufian: Leveraging Email based Social Networks to Prevent Spam – Framework, System Design and Evaluation	2009	2012	Associate Professor at National University of Computer and Emerging Sciences, Pakistan

Tegeler, Florian: Content Agnostic Malware Detection in Networks (' summa cum laude ')	2008	2012	Senior Vice President at Evotec, Germany
Neumann, Niklas: Decentralized Network Based Mobility Management: Framework, System Design and Evaluation	2007	2011	Head of Department IT-Betrieb, Deutsche Post E-Post Solutions GmbH, Germany
Stiemerling, Martin: Cooperative Internet Access in Resource Constrained Environments	2007	2011	Professor and Dean at University of Applied Sciences Darmstadt, Germany. Also: IESG Member and IETF Transport Area Director (2012-2016)
Arumaiturai, Mayutan: Network Friendly Congestion Control: Framework, Protocol Design and Evaluation	2007	2010	Expert 5G Technologies for Digital Rail, Deutsche Bahn AG, Germany
Shi, Lei: On the Network Monitoring and Fault Management of Next Generation Networks	2007	2010	Lecturer (Assistant Professor) at South East Technological University, Ireland
Steinleitner, Niklas: Firewall Traversal in Mobile Ipv6 Networks	2006	2008	Director, Department of Information and Communications Technologies, Lower Saxony State Authority for Road Construction & Transportation, Germany
Kuo, Fang-Chun: Exploiting Network Coding in Lossy Wireless Networks	2005	2009	Senior Expert, Deutsche Bahn, Germany
Lei, Jun: Media Distribution Using Overlay Multicast and Peer-to-Peer Technologies (' summa cum laude ')	2004	2008	Research Scientist at Nokia Solutions Networks

Supervised Master Theses (at University of Göttingen unless noted)

Candidates and Titles	Degree	Year of Completion
A Class Reweighting Framework with Deep Convolutional Networks on Imbalanced Clinical Image Datasets (Tapashi Gosswami)	MSc.	2022
Mining evolutionary pattern of academic collaboration network in computer science conferences (Cong Li)	MSc.	2021
Probabilistic Time Series Forecasting using ML Models for the Intraday Energy Market (Muhammad Ali Hamza)	MSc.	2021
The implementation of a QoE fairness video streaming system in mobile environments (Yuhan Wang)	MSc.	2021
Longitudinal Multiomics Analysis (Disha Purohit, ITIS student from Uni Hannover)	MSc.	2020
A multi-task deep learning approach to improve recommendation with incomplete user profiles (Yifan Chen)	MSc.	2020
Predicting Coziness of Cities Using Commute Data (Sven Voigt)	MSc.	2019
Information Centric Incentivized Networking (ICIN) (Alireza Zarei)	MSc.	2019
Cooperative Collision Avoidance for Autonomous Driving via Multi-Agent Deep Reinforcement Learning (Robert Tasik)	MSc.	2019
An analysis of user occupation through Quora (Kangcheng Wu)	MSc.	2019
Affiliation Analysis on Technical Program Committees of Major Computer Science Conferences (Nikolaj Kopp)	MSc.	2019
Design for an Android App and Data Analysis (Fangxi Deng)	MSc.	2019
The Evaluation and Optimization of Recommender System in Rating Prediction through Deep Learning Methods (Mingyu Chen)	MSc.	2019
Big Data Analysis: Market Research Using Online Social Network (M Firoz Kabir, ITIS student from TU Braunschweig)	MSc.	2018
AnswererRank: a topic-sensitive expert finding algorithm for stack overflow (Yue Chen)	MSc.	2018
Feasibility study of an HTML5 version of a Flash application (Fabian Meyer)	MSc.	2017

Sybils in Disguise: An Attacker View on OSN-based Sybil Defenses (Martin Schwarzmaier)	MSc.	2017
Decentralizing Online Social Networks via Home Gateways (Dieter Lechler)	MSc.	2017
Design, Implementation and Comparison Evaluation of an ICN-based Architecture for Disaster Scenarios (Benno Martim Schubert)	MSc.	2016
Measurement and Analysis of Google Scholar (Cong Ding)	MSc.	2013
On Security of Decentralized, Matrix Factorization-Based Network Coordinate Systems (Shining Wu)	MSc.	2013
Evaluation of the Routing Performance of Various Mobility Solutions (Ghulam Muhammad, visiting student from FH Bremen)	MSc.	2011
Development of a Mobile Social Networking Platform Supporting Decentralized Data Storage Optimized by Social Trust (David Koll)	MSc.	2010
Performance Evaluation of TCP Variants over UMTS Networks (Nikunj Modi, visiting student from KTH, Sweden)	MSc.	2008
Security Analysis, Prototype Implementation and Performance Evaluation of a New IPSec Session Resumption Method (Florian Tegeler)	MSc.	2008
Implementation and Evaluation of the Peer-to-Peer-Protocol (P2PP) for P2PSIP (Kai Michael Cohrs)	MSc.	2008
RTP over Datagram TLS (Jonh-Patrick Wowra)	MSc.	2007
Implementation and Performance Evaluation of the IETF QoS NSLP Protocol (Bernd Schlör)	MSc.	2007
Diameter WebAuth: An AAA-based Identity Management Framework for Web Applications (Niklas Neumann)	MSc.	2007
HIP Access Control Using SIP (Steffen Wagner)	MSc.	2006
Implementation & Testing of NAT/Firewall NSLP Protocol (Niklas Steinleitner)	MSc.	2005
Implementation of a Signaling Router for the Euro6IX Premium Service (Ingo Juchem)	MSc.	2005
Prototypical Implementation and Experimental Testbed Setup of QoS-Enabled Mobility Concept Based on HMIPv6 (Axel Neumann, TU Berlin)	Dipl.-Ing.	2002

Other Employed/Hosted Research Fellows/Postdoctoral Researchers

Name	Start	End	Further career of the researcher
Dr. Yuan, Tingting (postdoc)	2020	Ongoing	Humboldt Fellow at Computer Networks Group, University of Göttingen, Germany
Dr. Yuan, Yali (postdoc)	2018	2021	Associate Professor at Southeast University, China
Dr. Adhatarao, Sripriya Srikant (postdoc)	2020	2021	Technical Project Manager, Apheris AI GmbH, Berlin, Germany
PD Dr. Arumathurai, Mayutan (group leader/postdoc research employment during 2009-2011 and 2013-2020)	2013	2020	Expert 5G Technologies for Digital Rail, Deutsche Bahn AG, Berlin, Germany
Dr. Zheng, Hui (EU COSAFE visiting scholar for 10 months)	2019	2020	Assistant Professor at Beijing Information Science and Technology University, China
Dr. Zhao, Jinxu (visiting scholar from Tsinghua University for 4 months)	2019	2020	Associate Professor at Shandong Normal University, China
Gao, Xin (visiting scholar from Tsinghua University for 4 months)	2019	2020	PhD student at Tsinghua University, China
Lin, Mingkai (visiting scholar from Nanjing University for 3 months)	2019	2019	PhD student at Nanjing University, China
Li, Tan (visiting scholar from Tsinghua University for 3 months)	2018	2019	PhD student at Tsinghua University, China

Zhao, Hao (visiting scholar from Fudan University for 3 months)	2018	2018	PhD student at Polytechnic Institute of New York University, USA
Prof. Hua Wang (visiting professor from Victoria University, Australia for one month)	2018	2018	Full Professor at Institute for Sustainable Industries & Liveable Cities, Victoria University, Australia
He, Xinlei (visiting scholar from Fudan University for 3 months)	2018	2018	PhD student at Helmholtz Center for Information Security (CISPA) and University of Saarland, Germany
Dr Gong, Qingyuan (visiting PhD student from Fudan Univ for 4 months under EU MobileCloud project in 2016 and 2 months in 2019)	2016	2019	Tenure Track Associate Professor, Research Institute of Intelligent Complex Systems, Fudan University, China
Dr. Li, Yong (EU MobileCloud visiting scholar from Tsinghua University for 3 months)	2016	2016	Professor, Department of Electronic Engineering, Tsinghua University, China
Dr. Fengli Xu (EU MobileCloud visiting scholar from Tsinghua University for 3 months)	2016	2016	Postdoc at Knowledge Lab, University of Chicago, USA
Dr. Zhang, Rongrong (visiting scholar from Université Paris V – René Descartes for 3 months)	2016	2016	Associate Professor, Capital Normal University, Beijing, China
Dr. Gao, Shang (visiting scholar from Deakin University for 4 months)	2016	2016	Senior Lecturer, Deakin University, Geelong, Australia
Dr. Yang, Song (EU CleanSky ITN Experienced Researcher)	2015	2017	Associate Professor, Department of Computer Science, Beijing Institute of Technology, China
Dr. Wang, Shixiong (visiting scholar from Zhejiang Sci-Tech University, China for one year)	2015	2016	Professor and Deputy Dean, School of Economics and Management, Zhejiang Sci-Tech University, China
Dr. Qiu, Kun (EU MobileCloud visiting scholar from Fudan University for 4 months)	2015	2016	Researcher at Intel Corp. R&D, China
Dr. Han, Xiao (visiting scholar from Telecom SudParis for 3 months)	2015	2015	Associate Professor, School of Information Management, Shanghai Univ. of Finance and Management, China
Dr. Zhang, Xiao (EU MobileCloud visiting scholar from Nanjing University for 3 months)	2015	2015	Assistant Professor, School of Computer Science, Shandong University, China
Dr. Qian, Zhuzhong (EU MobileCloud visiting scholar from Nanjing University for 3 months)	2014	2014	Professor, Department of Computer Science, Nanjing Univ, China
Dr. Chen, Xu (Humboldt Scholar)	2014	2016	Professor, School of Data and Computer Sciences, Sun Yat-sen University, China
Dr. Sigg, Stephan (1.5 years of postdoc research employment at my group)	2013	2015	Associate Professor, Department of Communications and Networking, Aalto University, Finland
Dr. Du, Wei (1 year of postdoc research employment at my group)	2012	2012	Deep learning expert at TPVision (Philips TV), Belgium
Dr. Li, Wenzhong (Humboldt Scholar)	2011	2013	Professor, Department of Computer Science, Nanjing Univ, China
Dr. Liu, Hao (visiting PhD student from Tsinghua University for 4 months)	2011	2011	Data Scientist at Cisco Systems, China
Dr. Xu, Tianyin (1.5 years of research employment at my group)	2010	2011	Assistant Professor, Department of Computer Science, University of Illinois at Urbana-Champaign (UIUC), USA
Dr. Chen, Yang (2 years of postdoc research employment at my group)	2009	2011	Associate Professor, School of Computer Science, Fudan University, China

Dr. Jin Zhao (EU-project sponsored research visit for 3 months at my group)	2009	2010	Associate Professor, School of Computer Science, Fudan University, China
Dr. Lübben, Ralf (1.5 years of research employment at my group)	2008	2009	Professor at University of Applied Sciences Flensburg, Germany
Dr. Yang, Xiaodong (1.5 years of postdoc research employment at my group)	2007	2008	Associate Professor and Head, Dept of Communication Technology, Zhejiang Gongshang University, Hangzhou, China
Dr. Le, Deguang (Visiting PhD student from Xiamen University for 1 year, then 1 year of research employment at my group)	2004	2006	Professor at Changshu Institute of Technology, Changshu, China

Research Grants

Project title and funding sources	Start	End
CODECO – Cognitive Decentralised Edge Cloud Orchestration, €390K Funded by EU Horizon Europe Research and Innovation Actions	2022	2025
PP-MARL – Privacy Protection for Multi-Agent Deep Reinforcement Learning, Funded by Alexander von Humboldt Foundation	2021	2022
FutureNet – Future Network Technologies, Gift funding supported by Huawei, €240K	2020	2022
HTTP-NG – On HTTP2.0+ over 5G/B5G Networks, Gift funding supported by Huawei, €89K	2019	2020
ZeroTouch – Zero-Touch/Automated Network Management with Artificial Intelligence, funded by Lower Saxony Ministry of Education and Culture (MWK), €23K	2019	2020
COSAFE – Cooperative Connected Intelligent Vehicles for Safe and Efficient Road Transport, funded by EU H2020 RISE program (PI), €828K (EU) / €202K (UGOE)	2018	2023
InsideBD – Detection and Prevention of Data Exfiltration by Insiders in Big Data Environments (w/ Victoria University), funded by Universities Australia - German DAAD Joint Research Cooperation Scheme (PI), €11K	2018	2019
ICN2020 – Advancing ICN towards real-world deployment through research, innovative applications, and global scale experimentation, funded by EU H2020 ICT EU-Japan (coordinator), €1.3M (EU)+€1.3M (JP) / €510K (UGOE)	2016	2019
SocialBD – Social Networks in Big Data, funded by Lindemann Foundation, Germany, €10K	2016	2017
DFG-NSFC Symp. on Social Computing, funded by DFG-NSFC Sino-German Center, €45K	2016	2016
DFG-JSPS Symposium on Future Network and Pervasive Computing, funded by DFG, €15K	2015	2015
SMC-D2D – Socially-Motivated Cooperative Device-to-Device Communications, funded by Alexander von Humboldt Foundation	2014	2016
CleanSky – Network for Cloud Computing Eco-System, funded by EU FP7 MC-ITN (coordinator), €3.24M (EU) / €810K (UGOE)	2014	2018
MobileCloud – Linking Sino-European Research Institutions in Mobile Cloud Computing Era, funded by EU FP7 MC-IRSES (coordinator), €481K (EU) / €300K (UGOE)	2014	2016
GreenICN – Architecture and Applications of Green Information Centric Networking, funded by EU FP7 ICT EU-Japan (coordinator), €1.5M (EU)+€1.5M (JP) / €430K (UGOE)	2013	2016
SWZ – Simulation Research Center, funded by State Lower Saxony & Volkswagen Foundation, €50K	2013	2016
Conference: International Conference on Network Protocols (ICNP 2013), funded by DFG, €25K	2013	2013
CD-DTN – Collaborative Data Dissemination in Delay Tolerant Mobile Ad Hoc Networks, funded by Alexander von Humboldt Foundation	2012	2014
SocialNets – Structure, Functionality and Dynamics of Social Networks, funded by Lindemann Foundation, Germany, €10K	2012	2013
NG-Media – Principles and Design of Next-Generation Internet Media Streaming (w/ Fudan University), funded by DAAD/CSC PPP-China, €27K	2011	2013
DFG-NSFC Symposium on Internet of Things, funded by DFG-NSFC Sino-German Center, €34K	2010	2010
FIMR – Future Internet Mobility and Routing, funded by Fulbright Foundation/US Department of State	2009	2009
NG-SIG – New Advances and Applications of Next Generation Internet Signaling (w/ Columbia University), funded by DAAD PPP-USA, €16K	2008	2009
ADVMM – Advanced Mobility Management in 4G Networks, funded by Huawei, €80K	2007	2008

MING-T – Multistandard integrated network convergence for global mobile and broadcast technologies, funded by EU FP6 IST STREP, €1.7M (EU) / €201K (UGOE)	2007	2009
ENABLE – Enabling Efficient and Operational Mobility in Large Heterogeneous IP Networks, funded by EU FP6 IST STREP, €2.45M (EU) / €420K (UGOE)	2006	2008
Daidalos-II – Designing Advanced network Interfaces for the Delivery and Administration of Location independent, Optimised personal Services, funded by EU FP6 IST Integrated Project, Co-PI, €13.8M / €200K (UGOE)	2006	2008
PTLS – Performance Study of Transport Layer Security, funded by Siemens Research, €20K	2005	2006
VIDIOS – Video Distribution over MPLS Networks supporting heterogeneous format environments, funded by EU FP6 Eureka Celtic & T-Systems (PI), €3.7M / €274K (UGOE)	2005	2006
IPT – Internet Protocol Testing, funded by ETSI and EU, €20K (UGOE)	2003	2005
MobiAuth – QoS and Authentication Issues in IP Mobility, funded by Panasonic Princeton Lab, USA (PI), \$15K	2003	2004

Courses Taught (at University of Göttingen unless noted)

- Summer Semester 2022: Data Science for Smart Cities (MSc., in collaboration with City Göttingen), Practical Course Networking Lab (BSc), Advanced Computer Networks (MSc), Seminar Internet Technologies, Advanced Topics in AI for Networking (MSc/PhD)
- Winter Semester 2021/22: Data Science for Smart Cities (MSc., in collaboration with City Göttingen), Practical Course Networking Lab (BSc), Computer Networks (BSc), Seminar Internet Technologies, Advanced Topics in Mobile and Social Computing (MSc/PhD)
- Summer Semester 2021: Advanced Practical Course Data Science (MSc), Smart Cities (MSc., in collaboration with City Göttingen), Practical Course Networking Lab (BSc), Advanced Computer Networks (MSc), Seminar Advanced Topics in Mobile and Social Computing (MSc/PhD)
- Winter Semester 2020/21: Computer Networks (BSc), Seminar Advanced Topics in Mobile and Social Computing (MSc/PhD), Seminar on Internet Technologies (BSc/MSc), Practical Course on Smart Cities (MSc., in collaboration with City Göttingen)
- Summer Semester 2020: Advanced Practical Course Data Science (MSc), Practical Course Networking Lab (BSc), Advanced Computer Networks, subject: Internet of Things and Its Security (MSc)
- Winter Semester 2019/20: Computer Networks (BSc), Seminar Advanced Topics in Mobile Communications (MSc/PhD), Seminar on Internet Technologies (BSc/MSc)
- Summer Semester 2019: Advanced Practical Course Data Science (MSc), Practical Course Networking Lab (BSc), Advanced Computer Networks (MSc)
- Winter Semester 2018/19: Computer Networks (BSc), Seminar Advanced Topics in Mobile Communications (MSc/PhD), Seminar on Internet Technologies (BSc/MSc)
- Summer Semester 2018: Advanced Practical Course Data Science (MSc), Practical Course Networking Lab (BSc), Advanced Computer Networks (MSc)
- Winter Semester 2017/18: Computer Networks (BSc), Practical Course: Data Science (MSc/PhD/BSc), Practical Course Networking Lab (BSc), Seminar on Internet Technologies (BSc/MSc)
- Summer Semester 2017: Advanced Practical Course Data Science (MSc/BSc), Seminar on Internet Technologies (Summer 2017) (MSc), Advanced Computer Networks (MSc), Practical Course Networking Lab (BSc)
- Winter Semester 2016/17: Practical Course Networking Lab (BSc), Computer Networks (BSc), Practical Course on Data Science for Computer Networks (MSc), Seminar on Internet Technologies (BSc/MSc)
- Summer Semester 2016: Practical Course Networking Lab (BSc), Practical Course Advanced Networking: Data Science Edition (MSc), Advanced Topics in Social Network in Mobile Big Data (MSc), Seminar on Internet Technologies (BSc/MSc), Advanced Computer Networks (MSc)
- Winter Semester 2015/16: Computer Networks (BSc), Practical Course Advanced Networking (MSc), Seminar on Internet Technologies (BSc/MSc), Machine Learning and Pervasive Computing (MSc)
- Fall Semester 2015: Social Network and Big Data (MSc) at Tsinghua University
- Summer Semester 2015: Practical Course Networking Lab (BSc), Practical Course Advanced Networking (MSc), Advanced Topics in Mobile Communications (AToMIC) (MSc), Seminar on Internet Technologies (BSc/MSc), Advanced Computer Networks (MSc), Machine Learning and Pervasive Computing (MSc)
- Winter Semester 2014/15: Advanced Topics in Computer Networking (MSc), Practical Course Networking Lab (BSc), Practical Course Advanced Networking (MSc), Seminar on Internet Technologies (BSc/MSc), Computer Networks (BSc), Machine Learning and Pervasive Computing (MSc)
- Summer Semester 2014: Advanced Topics in Social Network and Big Data Methods (MSc), Advances in Mobile Applications and Mobile Cloud Computing (MSc), Practical Course Networking Lab (BSc), Practical Course Advanced Networking (MSc), Seminar on Internet Technologies (BSc/MSc), Advanced Computer Networks (MSc)
- Winter Semester 2013/14: Advanced Topics in Computer Networking (MSc), Practical Course Networking

- Lab (BSc), Practical Course Advanced Networking (MSc), Seminar on Internet Technologies (BSc/MSc), Computer Networks (BSc), Selected Topics in Pervasive Computing (MSc)
- Summer Semester 2013: Advanced Topics in Mobile Communications (AToMIC) (MSc), Practical Course Networking Lab (BSc), Practical Course Advanced Networking (MSc), Seminar on Internet Technologies (BSc/MSc), Computer Networks (BSc), Advanced Computer Networks (MSc)
 - Winter Semester 2012/13: Advanced Topics in Computer Networking (MSc), Practical Course Networking Lab (BSc), Practical Course Advanced Networking (MSc), Seminar on Internet Technologies (BSc/MSc), Computer Networks (BSc), Social Networks Seminar (MSc)
 - Summer Semester 2012: Advanced Topics in Mobile Communications (AToMIC) (MSc), Practical Course Networking Lab (BSc), Practical Course Advanced Networking (MSc), Seminar on Internet Technologies (BSc/MSc), Computer Networks (BSc), Advanced Computer Networks (MSc)
 - Winter Semester 2011/12: Advanced Topics in Computer Networking (MSc), Practical Course Networking Lab (BSc), Practical Course Advanced Networking (MSc), Seminar on Internet Technologies (BSc/MSc), Computer Networks (BSc), Social Networks Colloquium (BSc/MSc)
 - Summer semester 2011: Advanced Topics in Mobile Communications (AToMIC) (MSc), Practical Course Networking Lab (BSc), Practical Course Advanced Networking (MSc), Seminar on Internet Technologies (BSc/MSc), Computer Networks (BSc)
 - Winter Semester 2010/11: Advanced Topics in Computer Networking (MSc), Practical Course Networking Lab (BSc), Practical Course Advanced Networking (MSc), Seminar on Internet Technologies (BSc/MSc), Computer Networks (previously Telematik) (BSc), Seminar on Mathematical Models (MSc/PhD)
 - Summer semester 2010: Seminar Advanced Topics in Mobile Communications, Seminar Internet Technologies; Practical Course Networking Lab.
 - Winter semester 2009/10: seminars Internet Technologies and Advanced Topics in Computer Networking, Practical Course Networking Lab, and lecture Computer Networks.
 - Summer semester 2009: Seminar Advanced Topics in Mobile Communications, Seminar on Internet Technologies; Practical Course Networking Lab.
 - Winter semester 2009/10: seminars Internet Technologies and Advanced Topics in Computer Networking, Practical Course Networking Lab, and lecture Computer Networks.
 - Summer semester 2009: Seminar Advanced Topics in Mobile Communications, Seminar on Internet Technologies; Practical Course Networking Lab (based on Prof. Jorg Liebeherr and Prof. Magda El Zarki's book "Mastering Networks: An Internet Lab Manual).
 - Winter semester 2008/09: Praktikum-Advanced Networking, seminars Internet Technologies, Advanced Topics in Computer Networking, and lectures Computer Networks.
 - Summer semester 2008: Praktikum-Telematik, seminars Internet Technologies - Selected Topics on Multimedia and Peer-to-Peer Networking, Advanced Topics in Mobile Communications, and lecture "Mobile Communications II".
 - Winter semester 2007/08: practical course "Practical Course on Computer Networks", lecture Computer Networks and seminar Advanced Topics in Computer Networking.
 - Summer semester 2007: practical course "Practical Course on Computer Networks", seminars Advanced Topics in Computer Networking and Digital Video Broadcasting (DVB).
 - Winter semester 2006/07: practical course "Praktikum-Telematik", lecture Computer Networks and seminar Advanced Topics in Mobile Communications.
 - Summer semester 2006: Seminar Advanced Topics in Internet Research and practical course "Praktikum-Telematik".
 - Winter semester 2005/06: Seminar Advanced Topics in Mobile Communications, Lecture Computer Networks, practical course "Praktikum-Telematik".
 - Summer semester 2005: Seminar Advanced Topics in Computer Networking and practical course "Praktikum-Telematik".
 - Winter semester 2004/05: Lecture Computer Networks and practical course "Praktikum-Telematik".
 - Summer semester 2004: Seminar Advanced Topics in Mobile Communications.
 - Winter semester 2003/2004: Lecture Telematik (Computer Networks).
 - Summer semester 2003: Lecture Informatik II (Computer Science-II).
 - Winter semester 2002/2003: Lecture Telematik (Computer Networks).

20 Representative Publications

1. Yanan Gao, Song Yang, Fan Li, Stojan Trajanovski, Pan Zhou, Pan Hui, [Xiaoming Fu](#). Video Content Placement at the Network Edge: Centralized and Distributed Algorithms, **IEEE Transactions on Mobile Computing** (accepted), August 2022
2. Yali Yuan, Weijun Wang, Yuhan Wang, Sripriya Srikant Adhatarao, Bangbang Ren, Kai Zheng, [Xiaoming Fu](#). VSiM: Improving QoE Fairness for Video Streaming in Mobile Environments. **IEEE INFOCOM 2022**, June 2022 (Acceptance rate: 19.9%, the first author was my postdoc)
3. Yali Yuan, Chencheng Liang, Xu Chen, Thar Baker, [Xiaoming Fu](#), Adaptive Fuzzy Game-Based Energy-Efficient Localization in 3D Underwater Sensor Networks, **ACM Transactions on Internet Technology**,

- 22(2): 1-20, May 2022 (Google Scholar citations: 3; the first author was my postdoc)
4. Weijun Wang, Haipeng Dai, Chao Dong, Fu Xiao, Jiaqi Zheng, Xiao Cheng, Guihai Chen, [Xiaoming Fu](#), Deployment of Unmanned Aerial Vehicles for Anisotropic Monitoring Tasks, **IEEE Transactions on Mobile Computing**, 21(2): 495-513, Feb 2022 (Google Scholar citations: 3; the first author is my PhD student)
 5. Shuai Xu, Dechang Pi, Jiuxin Cao, [Xiaoming Fu](#). Hierarchical temporal-spatial preference modeling for user consumption location prediction in Geo-Social Networks. **Information Processing & Management**, Elsevier, 58(6): 102715, Nov 2021. (The first author was my PhD student)
 6. 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**, 20(2): 445-459, Feb 2021 (Google Scholar Citations: 52. The first author was a postdoc within the EU CleanSky project under my supervision)
 7. Yali Yuan, Sripriya Srikant Adhatarao, Mingkai Lin, Yachao Yuan, Zheli Liu, [Xiaoming Fu](#), ADA: Adaptive Deep Log Anomaly Detector, **IEEE INFOCOM 2020**, July 2020. (Top conference on computer communications, acceptance rate: 19.8%; Google Scholar citations: 19; first author was my postdoc)
 8. Qingyuan Gong, Yang Chen, Xinlei He, Zhou Zhuang, Tianyi Wang, Hong Huang, Xin Wang, [Xiaoming Fu](#), DeepScan: Exploiting Deep Learning for Malicious Account Detection in Location-Based Social Networks, **IEEE Communications Magazine**, Feature Topic on Mobile Big Data for Urban Analytics, 56(11): 21-27, Nov 2018. (Google Scholar citations: 65; the first author was a visiting PhD student at my group)
 9. Sameer G Kulkarni, Guyue Liu, K. K. Ramankrishnan, Timothy Wood, Mayutan Arumathurai, [Xiaoming Fu](#), REINFORCE: Achieving Efficient Failure Resiliency for Network Function Virtualization based Services, **ACM CoNEXT 2018**, revised version in **IEEE/ACM Transactions on Networking**, 28(2): 695-708, 2020 (Google Scholar citations: 50; the first author was my PhD student)
 10. Sameer G Kulkarni, Wei Zhang, Jinho Hwang, Shriram Rajagopalan, K. K. Ramankrishnan, Timothy Wood, Mayutan Arumathurai, [Xiaoming Fu](#), NFVnice: Dynamic Backpressure and Scheduling for NFV Service Chains, **ACM SIGCOMM 2017**, revised version in **IEEE/ACM Transactions on Networking**, 28(2): 639-652, 2020. (Google Scholar citations: 129; the first author was my PhD student)
 11. Yali Yuan, Robert Tasik, Sripriya Adhatarao, Yachao Yuan, Zheli Liu, [Xiaoming Fu](#), RACE: Reinforced Cooperative Autonomous Vehicle Collision Avoidance, **IEEE Transactions on Vehicular Technology**, Special Issue on Connected and Autonomous Vehicles: Technologies, Methodologies, and Applications, 69(9): 9279-9291, Sept. 2020. (Google Scholar citations: 18; the first author was my postdoc)
 12. Fengli Xu, Zhen Tu, Yong Li, Pengyu Zhang, [Xiaoming Fu](#), Depeng Jin, Trajectory Recovery from Ash: User Privacy Is NOT Preserved in Aggregated Mobility Data, **WWW 2017**. (Top conference on web science and applications, acceptance rate: 17%; Google Scholar citations: 149; first author was a visiting PhD student at my group)
 13. Lingjun Pu, Xu Chen, Jingdong Xu, [Xiaoming Fu](#), D2D Fogging: An Energy-efficient and Incentive-aware Task Offloading Framework via Network-assisted D2D Collaboration, **IEEE Journal on Selected Areas in Communications (JSAC)**, Series on Green Communications & Networking, 34(12): 3887-3901, Nov. 2016 (Google Scholar citations: 316; the first author was my PhD student; Clarivate "Highly Cited Paper")
 14. Xu Chen, Lei Jiao, Wenzhong Li, [Xiaoming Fu](#), Efficient Multi-User Computation Offloading for Mobile-Edge Cloud Computing, **IEEE/ACM Transactions on Networking**, 24(5): 2795-2808, Oct 2016 (Google Scholar citations: 2181; the first author was a Humboldt postdoc fellow at my group; the most cited ToN article in the past 26 years; Clarivate "Highly Cited Paper")
 15. Farshid Hassani Bijarbooneh, Wei Du, Edith Ngai, [Xiaoming Fu](#), Jiangchuan Liu, Cloud-Assisted Data Fusion and Sensor Selection for Internet-of-Things, **IEEE Internet of Things Journal**, 3(3): 257-268, June 2016. (Google Scholar citations: 99. This work was started when the first author was a DAAD U4 visiting PhD student at my group and continued during my DAAD visit at Uppsala University)
 16. Hong Huang, Jie Tang, Lu Liu, JarDer Luo, [Xiaoming Fu](#), Triadic Closure Pattern Analysis and Prediction in Social Networks, **IEEE Transactions on Knowledge and Data Engineering**, 27(12): 3374-3389, Dec 2015. Earlier conference version: Mining Triadic Closure Patterns in Social Networks, 23rd International World Wide Web Conference (**WWW 2014**). (Joint Google Scholar citations: 68+73; the first author was my PhD student)
 17. Lei Jiao, Jun Li, Wei Du, [Xiaoming Fu](#), Multi-Objective Data Placement for Multi-Cloud Socially Aware Services, **IEEE INFOCOM 2014**. (Top conference on computer communications, acceptance rate: 19.4%; Google Scholar citations: 87; first author was my PhD student)
 18. Hao Liu, Yaoyue Zhang, Yuezhi Zhou, Di Zhang, [Xiaoming Fu](#), K. K. Ramakrishnan, Mining Checkins from Location-sharing Services for Client-independent IP Geolocation, **IEEE INFOCOM 2014**. (Top conference on computer communications, acceptance rate: 19.4%, Google Scholar Citations: 54; first author was my co-supervised PhD student at Tsinghua and visiting scholar at my group)
 19. Florian Tegeler, [Xiaoming Fu](#), Giovanni Vigna and Christopher Krügel, BotFinder: Finding Bots in Network Traffic without Deep Packet Inspection, **ACM CoNEXT 2012**. (Top conference on emerging networking technologies, acceptance rate: 17.5%, Google Scholar citations: 228, first author was my PhD student; this system has been adopted and deployed successfully in one the largest telecommunication operators in Turkey)
 20. Jiachen Chen, Mayutan Arumathurai, Lei Jiao, [Xiaoming Fu](#), K. K. Ramakrishnan, COPSS: An Efficient Content Oriented Publish/Subscribe System, **ACM/IEEE Symposium on Architectures for Networking and**

Communication Systems (**ANCS 2011**). (Google Scholar citations: 155; most cited paper in ANCS'11; first author was my PhD student)

Journal Publications (Selected)

1. 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 (JSAC)**, Series on Network Softwarization & Enablers, 37(8): 1755-1768, Aug. 2019. (This work was conducted when the first author was EU MobileCloud project visitor at my group)
2. 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 (JSAC)**, Series on Network Softwarization & Enablers, 37(3): 484-498, Mar. 2019. (This work was conducted when the first author was EU MobileCloud project visitor at my group)
3. Lingjun Pu, Xu Chen, Jingdong Xu, [Xiaoming Fu](#), Crowd Foraging: A QoS-oriented Self-organized Mobile Crowdsourcing Framework over Opportunistic Networks, **IEEE Journal on Selected Areas in Communications (JSAC)**, Special Issue on Human-In-The-Loop Mobile Networks, 35(4): 1-15, Apr. 2017. (The first author was my PhD student)
4. Lingjun Pu, Xu Chen, Jingdong Xu, [Xiaoming Fu](#), D2D Fogging: An Energy-efficient and Incentive-aware Task Offloading Framework via Network-assisted D2D Collaboration, **IEEE Journal on Selected Areas in Communications (JSAC)**, Series on Green Communications & Networking, 34(12): 3887-3901, Nov. 2016 (The first author was my PhD student; Clarivate "Highly Cited Paper")
5. Hao Liu, Yaoyue Zhang, Yuezhi Zhou, [Xiaoming Fu](#), Laurence Yang, Receiving Buffer Adaptation for High-speed Data Transfer, **IEEE Transactions on Computers**, 62(11): 2278-2291, Nov. 2013. (The first author was a visiting PhD student which I continued to co-supervise during my sabbatical at Tsinghua University)
6. Bangbang Ren, Yali Yuan, Deke Guo, Guoming Tang, Weijun Wang, [Xiaoming Fu](#), Optimal Deployment of SRv6 to Enable Network Interconnection Service, **IEEE/ACM Transactions on Networking**, 30(1): 120-133, Feb 2022 (The first author is my PhD student)
7. Zhenhua Han, Haisheng Tan, Shaofeng Jiang, Wanli Cao, Xiaoming Fu, Lan Zhang, Francis C.M. Lau, SPIN: BSP Job Scheduling with Placement-Sensitive Execution. **IEEE/ACM Transactions on Networking**, 29(5): 2267-2280, Oct 2021
8. Sameer G Kulkarni, Guyue Liu, K. K. Ramankrishnan, Timothy Wood, Mayutan Arumathurai, [Xiaoming Fu](#), REINFORCE: Achieving Efficient Failure Resiliency for Network Function Virtualization based Services, **IEEE/ACM Transactions on Networking**, 28(2): 695-708, 2020 (The first author was my PhD student)
9. Sameer G Kulkarni, Wei Zhang, Jinho Hwang, Shriram Rajagopalan, K. K. Ramankrishnan, Timothy Wood, Mayutan Arumathurai, [Xiaoming Fu](#), NFVnice: Dynamic Backpressure and Scheduling for NFV Service Chains, **IEEE/ACM Transactions on Networking**, 28(2): 639-652, 2020 (First author was my PhD student)
10. Xu Chen, Lei Jiao, Wenzhong Li, [Xiaoming Fu](#), Efficient Multi-User Computation Offloading for Mobile-Edge Cloud Computing, **IEEE/ACM Transactions on Networking**, 24(5): 2795-2808, Oct 2016 (The first author was a Humboldt postdoc fellow at my group; Clarivate "Highly Cited Paper")
11. Lei Jiao, Jun Li, Tianyin Xu, Wei Du, [Xiaoming Fu](#), Optimizing Cost for Online Social Networks on Geo-Distributed Clouds, **IEEE/ACM Transactions on Networking**, 24(1): 99-112, Jan. 2016. 2016 (The first author was my PhD student)
12. Wei Du, Yongjun Liao, Narisu Tao, Pierre Geurts, [Xiaoming Fu](#), Guy Leduc, Rating Network Paths for Locality-Aware Overlay Construction and Routing, **IEEE/ACM Transactions on Networking**, 23(5): 1661-1673, Oct 2015. (The first author was my postdoc)
13. Dan Li, Hongze Zhao, Mingwei Xu, [Xiaoming Fu](#), Revisiting the Design of Mega Data Centers: Considering Heterogeneity among Containers, **IEEE/ACM Transactions on Networking**, 22(3): 1503-1515, Oct. 2013. (This work was conducted during my sabbatical at Tsinghua University)
14. [Xiaoming Fu](#), Henning Schulzrinne, Hannes Tschofenig, Christian Dickmann and Dieter Hogrefe, Overhead and Performance Study of the General Internet Signaling Transport (GIST) Protocol, **IEEE/ACM Transactions on Networking**, 17(1): 158-171, Feb. 2009. (Google Scholar Citation: 34)
15. Yanan Gao, Song Yang, Fan Li, Stojan Trajanovski, Pan Zhou, Pan Hui, [Xiaoming Fu](#). Video Content Placement at the Network Edge: Centralized and Distributed Algorithms, **IEEE Transactions on Mobile Computing** (accepted), August 2022
16. Song Yang, Fan Li, Zhi Zhou, Xu Chen, Yu Wang, [Xiaoming Fu](#), Online Control of Service Function Chainings Across Geo-Distributed Datacenters, **IEEE Transactions on Mobile Computing** (early access), Dec 2021, DOI: 10.1109/TMC.2021.3135535
17. Weijun Wang, Haipeng Dai, Chao Dong, Fu Xiao, Jiaqi Zheng, Xiao Cheng, Guihai Chen, [Xiaoming Fu](#), Deployment of Unmanned Aerial Vehicles for Anisotropic Monitoring Tasks, **IEEE Transactions on Mobile Computing**, 21(2): 495-513, Feb 2022 (the first author is my PhD student)
18. 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**, 20(2): 445-459, Feb 2021 (The first author was a postdoc within the EU CleanSky project under my supervision)
19. Yali Yuan, Chencheng Liang, Xu Chen, Thar Baker, Xiaoming Fu, Adaptive Fuzzy Game-Based Energy-Efficient Localization in 3D Underwater Sensor Networks, **ACM Transactions on Internet Technology**,

- 22(2): 1-20, May 2022 (The first author was my postdoc)
20. Qingyuan Gong, Yang Chen, Xinlei He, Yu Xiao, Pan Hui, Xin Wang, [Xiaoming Fu](#), Cross-Site Prediction on Social Influence for Cold-Start Users in Online Social Networks, **ACM Transactions on Web**, 15(2): No. 6, 1-23, DOI: 10.1145/3409108, May 2021 (The first author was a visiting PhD student at my group)
 21. Hong Huang, Jie Tang, Lu Liu, JarDer Luo, [Xiaoming Fu](#), Triadic Closure Pattern Analysis and Prediction in Social Networks, **IEEE Transactions on Knowledge and Data Engineering**, 27(12): 3374-3389, Dec 2015. (The first author was my PhD student)
 22. Hong Huang, Yuxiao Dong, Jie Tang, Hongxia Yang, Nitesh V. Chawla, [Xiaoming Fu](#), Will Triadic Closure Strengthen Ties in Social Networks? **ACM Transactions on Knowledge Discovery from Data**, 12(3), Article No. 30, Jan. 2018. (The first author was my PhD student)
 23. Song Yang, Fan Li, Ramin Yahyapour, [Xiaoming Fu](#), Delay-Sensitive and Availability-Aware Virtual Network Function Scheduling for NFV. **IEEE Transactions on Services Computing**, 15(1): 188-201, Jan/Feb 2022. (The first author was a postdoc within the EU CleanSky project under my supervision)
 24. Yang Chen, Shining Wu, Jun Li, [Xiaoming Fu](#), NCShield: Protecting Decentralized, Matrix Factorization-Based Network Coordinate Systems, **IEEE Transactions on Services Computing**, 10(2): 244-257, Mar.-Apr. 2017. (The first author was a postdoc at my group)
 25. Osamah 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, June 2019 (The first author was my PhD student)
 26. Yang Chen, Xiao Wang, Cong Shi, Eng Keong Lua, [Xiaoming Fu](#), Beixing Deng, Xing Li, Phoenix: A Weight-based Network Coordinate System Using Matrix Factorization, **IEEE Transactions on Network and Service Management**, 8(4): 334-347, Dec 2011. (First author was my postdoc)
 27. 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 in Computing**, 7(1): 135-148, Jan-Mar 2019. (First author was my PhD student)
 28. Deke Guo, Bangbang Ren, Guoming Tang, Lailong Luo, Tao Chen, [Xiaoming Fu](#), Optimal Embedding of Aggregated Service Function Tree, **IEEE Transactions on Parallel and Distributed Systems**, 33(10): 2584-2596, Oct 2022.
 29. Enhuan Dong, [X. Fu](#), Mingwei Xu, and Yuan Yang, "Low-Cost Datacenter Load Balancing with Multipath Transport and Top-of-Rack Switches", **IEEE Transactions on Parallel and Distributed Systems**, 31(10): 2232-2247, 2020. (The first author was my PhD student)
 30. Song Yang, Philipp Wieder, Ramin Yahyapour, Stojan Trajanovski, [Xiaoming Fu](#), Reliable Virtual Machine Placement and Routing in Clouds, **IEEE Transactions on Parallel and Distributed Systems**, 28(10): 2965-2978, Oct. 2017. (The first author was a postdoc within the EU CleanSky project under my supervision)
 31. Wenzhong Li, Yuefei Hu, [Xiaoming Fu](#), Sanglu Lu, Daoxu Chen, Cooperative Positioning and Tracking in Disruption Tolerant Networks, **IEEE Transactions on Parallel and Distributed Systems**, 26(2): 382-391, Feb 2015. (This work was conduct when the first author was my Humboldt postdoc fellow at my group)
 32. Qi Li, Xinwen Zhang, Qingji Zheng, Ravi Sandhu, [Xiaoming Fu](#), LIVE: Lightweight Integrity Verification and Content Access Control for Named Data Networking, **IEEE Transactions on Information Forensics and Security**, 10(2): 308-320, Feb 2015. (The first author was a research visitor at my group)
 33. Xinlei He, Qingyuan Gong, Yang Chen, Yang Zhang, Xin Wang, [Xiaoming Fu](#), DatingSec: Detecting Malicious Accounts in Dating Apps Using a Content-Based Attention Network, **IEEE Transactions on Dependable and Secure Computing**, 18(5): 2193-2208, Sept.-Oct. 2021. (The first author was a visiting student at my group)
 34. Yali Yuan, Robert Tasik, Sripriya Adhatarao, Yachao Yuan, Zheli Liu, [Xiaoming Fu](#), RACE: Reinforced Cooperative Autonomous Vehicle Collision AvoidancE, **IEEE Transactions on Vehicular Technology**, Special Issue on Connected and Autonomous Vehicles: Technologies, Methodologies, and Applications, 69(9): 9279-9291, Sept. 2020. (The first author is my postdoc)
 35. Shuai Yu, Rami Langar, [Xiaoming Fu](#), Li Wang, Zhu Han, Computation Offloading with Data Caching Enhancement for Mobile Edge Computing, **IEEE Transactions on Vehicular Technology**, 67(11): 11098-11112, Nov. 2018. (The first author was a PhD student at UMPC I co-supervised during my sabbatical at UPMC)
 36. Xu Chen, Wenzhong Li, Sanglu Lu, Zhi Zhou, [Xiaoming Fu](#), Efficient Resource Allocation for On-Demand Mobile-Edge Cloud Computing, **IEEE Transactions on Vehicular Technology**, 67(9): 8769-8780, Sept 2018. (The first author was a Humboldt postdoc fellow at my group)
 37. Konglin Zhu, Wenzhong Li, [Xiaoming Fu](#), SMART: A Social and Mobile Aware Routing Strategy for Disruption Tolerant Networks, **IEEE Transactions on Vehicular Technology**, 63(7): 3423-3434, Sept. 2014. (The first author was my PhD student)
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2. Yali Yuan, Weijun Wang, Yuhan Wang, Sripriya Srikant Adhatarao, Bangbang Ren, Kai Zheng, Xiaoming Fu. VSiM: Improving QoE Fairness for Video Streaming in Mobile Environments. **IEEE INFOCOM 2022** (acceptance rate: 19.9%, the first author was my postdoc)
3. Fabian Wölk, Tingting Yuan, Krisztina Kis-Katos, and Xiaoming Fu, Measuring Consumption Changes in Rural Villages based on Satellite Image Data — A Case Study for Thailand and Vietnam, The 17th IEEE International Conference on Mobility, Sensing and Networking (**MSN 2021**), Dec 2021. (The first author is my PhD student)
4. Huang, H., R. Shi, W. Zhou, X. Wang, H. Jin, and X. Fu. Temporal Heterogeneous Information Network Embedding. The 30th International Joint Conference on Artificial Intelligence (**IJCAI 2021**) (acceptance rate: 587/4204=13.9%, the first author was my former PhD student)
5. He, N., S. Yang, F. Li, S. Trajanovski, F. A. Kuipers, and X. Fu, "A-DDPG: Attention Mechanism-based Deep Reinforcement Learning for NFV", The 29th IEEE/ACM International Symposium on Quality of Service (**IWQoS 2021**) (accepted rate: 64/256=25%).
6. Bangbang Ren, Deke Guo, Guoming Tang, Weijun Wang, Lailong Luo and Xiaoming Fu, SRUF: Low-Latency Path Routing with SRv6 Underlay Federation in Wide Area Network, **IEEE ICDCS 2021** (top conference in distributed systems, acceptance rate: 19.8%; first author is my PhD student)
7. Yali Yuan, Sripriya Srikant Adhatarao, Mingkai Lin, Yachao Yuan, Zheli Liu, Xiaoming Fu, ADA: Adaptive Deep Log Anomaly Detector, **IEEE INFOCOM 2020**, July 2020. (Top conference on computer communications, acceptance rate: 19.8%; first author is my postdoc)
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2. Xiaoming Fu, Jar-Der Luo, Margarete Boos (eds.), [Social Network Analysis: Interdisciplinary Approaches and Case Studies](#), CRC Press, Taylor & Francis Group, Mar. 2017. ISBN 9781498736640.
3. Xiaoming Fu, [From Resource Reservation to Extensible IP Signaling](#), Cuvillier Verlag, Dec. 2013, ISBN 9783954046010.
4. Xiaowen Chu, Xiaoming Fu, Baochun Li, Wei Wang, Hui Zang, Albert Zomaya, [Interplay Between Machine Learning and Networking Systems \(guest editorial\)](#), IEEE Network, November/December 2021.
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7. James Evans, Xiaoming Fu, Jar-Der Luo, Message from Editors-in-Chief, Journal of Social Computing, 3(2): i-ii, June 2022
8. James Evans, Xiaoming Fu, Jar-Der Luo, [Message from Editors-in-Chief](#), Journal of Social Computing, 2(2): i-ii, June 2021
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10. James Evans, Xiaoming Fu, Jar-Der Luo, [Inaugural Message from Editors-in-Chief](#), [Journal of Social Computing](#), IEEE, 1: i-iv, Sept 2020.
11. Xiaoming Fu, Silvia Giordano, Christian Jacquenet (eds), [Proceedings of the 19th IFIP Networking Conference \(Networking 2020\)](#), June 2020. IEEEExplore, ISBN: 978-3-903176-28-7
12. Xiaoming Fu, Hong Huang, Gareth Tyson, Lu Zheng, and Gang Wang (Guest Editors), Special Issue of [Social Computing and Big Data Applications](#), World Wide Web journal, Springer Verlag, Nov 2019.
13. Xiaoming Fu, Dirk Kutscher, Satyajayant Misra, Ruidong Li, [Information-Centric Networking Security, Guest Editorial](#), IEEE Communications Magazine, 56(11): 60-61, Nov. 2018
14. Kai Chen, Ganggang Xie, Xiaoming Fu, Zhi-Li Zhang, Message from the posters and demos session chairs (Editorial), [Proceedings of the 2019 ACM SIGCOMM Conference Posters and Demos](#), Aug 2019, ISBN: 978-1-4503-6886-5
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18. Xiaoming Fu, Yang Chen, Guy Leduc, Laurent Mathy. [Editorial for "Measurement-based optimization of P2P networking and applications"](#). Computer Networks, Elsevier, 56(3), Feb 2012.
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21. Tohru Asami, Xiaoming Fu, Jeff Burke, Dario Rossi, Ioannis Psaras (eds). [Proceedings of the 3rd ACM Conference on Information-Centric Networking \(ICN'16\)](#), Kyoto, Japan, Sept 26-28, 2016. ISBN 978-1-4503-4467-8
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Publications According to Research Areas:

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Media Coverage

- [Auszeichnung für Göttinger Informatiker: Prof. Dr. Xiaoming Fu vom Institut für Informatik der Universität Göttingen hat den IEEE ComSoc Internet Technical Committee Outstanding Service Award 2022 erhalten](#), University of Göttingen News Press (June 9, 2022)
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