GEORG-AUGUST-UNIVERSITÄT GÖTTINGEN

http://www.net.informatik.uni-goettingen.de

# Computer Networks Group@Univ Göttingen

## Staff

**Head:**
*Prof. Dr. Xiaoming Fu*

**Secretary**:
Tina Bockler

**Research Assistants:**
Dr. Tingting Yuan: reinforcement learning, privacy, edge computing, vehicular nets
Dr. Yali Yuan: edge computing, deep learning
Dr. S. Adhatarao: ICN, edge, video analytics
Yachao Shao: big data, imbalance learning
Jiaquan Zhang: social big data analytics
Fabian Wölk: edge computing, smart cities
Weijun Wang: UAVs, edge computing, IoT
Bangbang Ren: SDN, traffic engineering
Yunxiao Zhang: heart model, deep learning
Pablo Gutierrez-Marques: big data analytics

**Alumni (selected):**

Dr. Lei Jiao: ass prof@U. Oregon, USA
Dr. Tianyin Xu: ass. prof@UIUC, USA
Dr. Martin Stiemerling: Professor at Hochschule Darmstadt, DE
Dr. Ralf Lübben: Prof@HS Flensburg, DE
Dr. Stephan Sigg: assoc. prof@Aalto U., FI
Dr. Lei Shi: lecturer@Inst of Tech Carlow, IE
Dr. Sameer Kulkarni, assoc. prof.@IIT, IN
Dr. Sufian Hameed: assoc. prof@NUCES, PK
Dr. Hong Huang: assoc. prof@HUST, China
Dr. Konglin Zhu: assoc. prof@BUPT
Dr. Lingjun Pu: assoc. prof@Nankai U.
Dr. Xu Chen: Professor@Sun Yat-sen U.
Dr. Wenzhong Li: Professor@Nanjing U.
Dr. Yang Chen: assoc. prof@Fudan U.
*…plus in leading industries (IBM, Nokia, Siemens, VMWare, BMW, DB…)*

**Collaborators (selected):**

- USA: Columbia U., UCLA, UC Riverside, U. Oregon; AT&T Labs, Bell Labs
- UK: Cambridge, UCL; ARM, Ranplan, Birmingham City Council
- Australia: VictoriaU, UQueensland, UTS
- France: ParisTech, Telecom SudParis, Sorbonne U., Cnam; Cisco, Orange
- Germany: unis, MPI-DS; BMW, NEC, Nokia
- Sweden: Uppsala, KTH; Ericsson
- Finland: U. Helsinki, Aalto U.; Nokia
- Japan: NII, NICT, Osaka U., NEC, KDDI,
- China: Tsinghua, PKU, Nanjing, Fudan; Tencent, China Telecom, Huawei
- Hong Kong: PolyU, HKU, HKUST

**Potential topics for BSc/MSc projects:**

1. Assessing city livability with big data
2. Socioeconomic analysis on commuters
3. Enhancing privacy in federated learning

**Contact us:** net@cs.uni-goettingen.de

## Research

**Future Internet, IoT, Information-Centric Networking:**

Projects: EU ICN2020, GreenICN, MING-T, VIDIOS

- Achieving High Throughput for Heterogeneous Networks with Consecutive Caching and Adaptive Retrieval, IEEE TSNE, 2020
- ISI: Integrate Sensor Networks to Internet with ICN, IEEE Internet of Things Journal, 5(2): 491-499, 2018
- CNS: Content-oriented Notification Service for Managing Disasters, ACM ICN'16

**SDN, NFV, Data Centers, Mobile Edge/Cloud Computing:**

Projects: EU MobileCloud, CleanSky, ENABLE

- OFM: An Online Fisher Market for Cloud Computing, Infocom'19
- REINFORCE: Achieving efficient failure resiliency for network function virtualization based services, ACM CoNEXT'18/ToN 2020
- NFVnice: Dynamic Backpressure and Scheduling for NFV Service Chains, ACM SIGCOMM'17, IEEE/ACM ToN, 2020
- Efficient Multi-User Computation Offloading for Mobile-Edge Cloud Computing, IEEE/ACM ToN, 24(5): 2795–2808, 2016.

**Social Big Data, Urban Computing, Smart Cities/Mobility:**

Projects: EU COSAFE, DAAD, Humboldt&Lindeman Foundations

- ADA: Adaptive Deep Log Anomaly Detector, IEEE Infocom'20
- RACE: Reinforced Cooperative Autonomous Vehicle Collision Avoidance, IEEE TVT, Sept 2020
- A Cross-Platform Consumer Behavior Analysis of Large-Scale Mobile Shopping Data, WWW'18
- DeepScan: exploiting deep learning for malicious account detection in location-based social networks, IEEE ComMag, 2018

## Teaching

**Bachelor courses**

- Computer Networks (lecture + exercise)
- Networking Lab (practical course)

**Master/PhD courses:**

- Advanced Course on Networking (lecture)
- Practical Course on Data Science (practical course)
- Seminar on Internet Technology (seminar)
- SDN, Adv. Topics in Computer Networking (lecture/seminar)
- Adv. Topics in Mobile and Social Computing (seminar)