

Huandong Wang, Ph. D Candidate

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EDUCATION

Ph.D. Student, Dept. of Electronic Engineering, Tsinghua University, Beijing, P. R. China,

Sept. 2014 ~ Now

Major: Communication and Information System

Supervisor: Prof. Depeng Jin, Prof. Yong Li

GPA: 84.28/100

B.S., Dept. of Electronic Engineering, Tsinghua University, Beijing, P. R. China,

Sept. 2010 ~Jul. 2014

Major: Electronics Science and Technology

GPA: 89/100

B.S., Dept. of Mathematical Sciences, Tsinghua University, Beijing, P. R. China,

Sept. 2011 ~Jul. 2015

Major: Mathematics and Applied Mathematics (Second Degree)

GPA: 84.28/100

Experience

Visiting Researcher,

Oct. 2018 – Feb. 2019

Human Dynamics Group, MIT Media Lab, Massachusetts Institute of Technology

Worked together with Prof. Alex 'Sandy' Pentland

Research Intern,

Oct. 2016 – Sept. 2018

Data Analytics Team, Mobile Internet Group, Tencent Inc.

Research Intern,

Jun. 2015 – Aug. 2016

China Telecom Beijing Research Institute, China Telecom Corp., Ltd.

PROJECTS

06/2016- present

"Mobile Big Data Mining and Modeling", **Student Leader**

— Supported by the Tsinghua-Tencent Cooperation Project, the project is to carry out human-centric knowledge discovery, data mining and modeling, with Prof. Yong Li as the Principle Investigator.

— Coordinated the research plans and proofread the research papers of group members.

— System overall design and key problem investment.

— My research area: Human mobility prediction, Population distribution estimation.

01/2015- present

"Big Data Driven Cyber-Physical System Modeling and Understanding", **Student Leader**

— Supported by the Research Fund of Tsinghua University, the project is to qualitatively visualize and quantitatively characterize the spatio-temporal human behaviors in the physical-cyber system including mobility regularity, traffic consumption patterns, social friendship activity, online information and commodity consumption, etc., with Prof. Yong

Li and Prof. Depeng Jin as the Principle Investigators.

— Coordinated the research plans and proofread the research papers of group members.

— System overall design and key problem investment.

— My research area: Identity linkage across different services, User privacy leakage and protection, Traffic usage model of cellular networks.

12/2013- 12/2014 “Software-Defined Data Center Network”

— Supported by the Tsinghua-Hitachi International Cooperation Project, the project is to research the architecture and details of the software-defined data center networks, with Prof. Yong Li as the Principle Investigator.

— My research area: Virtual machine migration planning, Energy saving networks.

MAIN AWARDS

Oct. 2015	Winner of Student Travel Grant of ACM IMC 2015
Oct. 2015	National Scholarship, Tsinghua University
Jun. 2015	Best Paper Award of ACM HotPost 15
Oct. 2013	Academic Scholarship, Tsinghua University
Oct. 2012	Academic Scholarship, Tsinghua University

PUBLICATIONS

1. **Huandong Wang**, Yong Li, Sihan Zeng, Gang Wang, Pengyu Zhang, Pui Hui, Depeng Jin, “Modeling Spatio-Temporal App Usage for a Large User Population”, accepted in Proceedings of the ACM International Joint Conference on Pervasive and Ubiquitous Computing (**UbiComp**), 2019.
2. Chen Gao, Chao Huang, **Huandong Wang**, Yong Li, Depeng Jin, “Privacy-preserving Cross-domain Location Recommendation”, accepted in Proceedings of the ACM International Joint Conference on Pervasive and Ubiquitous Computing (**UbiComp**), 2019.
3. Jie Feng, Mingyang Zhang, **Huandong Wang**, Zeyu Yang, Chao Zhang, Yong Li, Depeng Jin, “User Identity Linkage via Deep Neural Network From Heterogeneous Mobility Data”, accepted in Proceedings of the 2018 International Conference on World Wide Web (**WWW**), 2019.
4. **Huandong Wang**, Chen Gao, Yong Li, Gang Wang, Depeng Jin, Jingbo Sun, “De-anonymization of Mobility Trajectories: Dissecting the Gaps between Theory and Practice”, In *Proceedings of the 25th Annual Network And Distributed System Security Symposium (NDSS)*, 2018.
5. **Huandong Wang**, Yong Li, Gang Wang, Depeng Jin, “You Are How You Move: Linking Multiple User Identities From Massive Mobility Traces”, In *Proceedings of the SIAM International Conference on Data Mining (SDM)*, 2018.
6. **Huandong Wang**, Yong Li, Yang Chen, and Depeng Jin, “Co-location social networks: Linking the physical world and cyberspace”, *IEEE Transactions on Mobile Computing*, 2018.
7. Hangyu Fan, **Huandong Wang**, Yong Li, “Data-Driven Packet Loss Estimation for Node Healthy Sensing in Decentralized Cluster”, *Sensors*, vol. 18, no. 2, pp. 320, 2018.
8. **Huandong Wang**, Chen Gao, Yong Li, Zhi-Li Zhang, Depeng Jin, “From Fingerprint to Footprint: Revealing Physical World Privacy Leakage by Cyberspace Cookie Logs”, In *Proceedings of the ACM International*

Conference on Information and Knowledge Management (CIKM), 2017.

9. **Huandong Wang**, Yong Li, Ying Zhang, Depeng Jin, “Virtual Machine Migration Planning in Software-Defined Networks”, *IEEE Transactions on Cloud Computing*, 2017.
10. Sihan Zeng, Huandong Wang, Yong Li, Depeng Jin, Predictability and Prediction of Human Mobility Based on Application-Collected Location Data, In *Proceedings of the IEEE 14th International Conference on Mobile Ad Hoc and Sensor Systems (MASS)*, 2017.
11. Fengli Xu, Yong Li, **Huandong Wang**, Pengyu Zhang, and Depeng Jin, “Understanding Mobile Traffic Patterns of Large Scale Cellular Towers in Urban Environment”, *IEEE/ACM Transactions on Networking*, 2016.
12. **Huandong Wang**, Yong Li, Depeng Jin, Pan Hui, Jie Wu, “Saving Energy in Partially Deployed Software Defined Networks”, *IEEE Transactions on Computers*, vol. 65, no. 5, pp. 1578-1592, 2016.
13. Jiaqiang Liu, Yong Li, **Huandong Wang**, Depeng Jin, Li Su, Lieguang Zeng, and Thanos Vasilakos, “Leveraging software-defined networking for security policy enforcement”, *Information Sciences*, vol. 327, pp. 288-299, 2016.
14. Lingsheng Shi, **Huandong Wang**, “The complexity of problems in wireless communication”, *Telecommunication Systems*, pp. 1-9, 2016.
15. **Huandong Wang**, Yong Li, Yang Chen, Yue Wang, Jian Yuan and Depeng Jin, “Co-Location Social Networks: Linking the Physical World and Cyberspace”, In *Proceedings of the 2016 IEEE/ACM International Conference on Advances in Social Networks Analysis and Mining (ASONAM)*, Short paper, Aug. 2016, pp. 298-298.
16. **Huandong Wang**, Yong Li, Ying Zhang, Depeng Jin, “Virtual Machine Migration Planning in Software-Defined Networks”, In *Proceedings of IEEE Conference on Computer Communications (INFOCOM)*, 2015, pp. 487-495.
17. **Huandong Wang**, Fengli Xu, Yong Li, Pengyu Zhang, and Depeng Jin, “Understanding Mobile Traffic Patterns of Large Scale Cellular Towers in Urban Environment.” In *Proceedings of the 2015 ACM Conference on Internet Measurement Conference (IMC)*, pp. 225-238. ACM, 2015.
18. **Huandong Wang**, Jingtao Ding, Yong Li, Pan Hui, Jian Yuan, and Depeng Jin, “Characterizing the Spatio-Temporal Inhomogeneity of Mobile Traffic in Large-scale Cellular Data Networks.” In *Proceedings of ACM International Workshop on Hot Topics in Planet-scale mObile computing and online Social networking (HotPOST)*, pp. 19-24, 2015 (Best Paper Award).

SKILLS

Programming Languages:

Software — Proficient: C, C++, MATLAB; Good: Java, Python, Scala

Hardware — Verilog HDL, VHDL

Big Data Platform Tools: Hadoop, Spark

Main Research Areas: Mobile Big Data, Data Mining, Social Networks, Software Defined Networks
