

Hao Wang

AFFILIATION	Edward S. Rogers Sr. Department of Electrical and Computer Engineering University of Toronto 10 King's College Road Toronto, Ontario M5S 3G4, Canada	<i>Email:</i> haowang@ece.utoronto.ca <i>Web:</i> http://www.haow.ca/ <i>Mobile:</i> +1 (647) 891-0836
PERSONAL INFORMATION	<i>Citizenship</i> Chinese	
EDUCATION	University of Toronto , Toronto, Ontario, Canada <i>Department of Electrical and Computer Engineering</i> <ul style="list-style-type: none">◇ Ph.D. candidate, Electrical and Computer Engineering, Sept. 2015 – Present<ul style="list-style-type: none">▷ <i>Advisor:</i> Baochun Li, Department of Electrical and Computer Engineering Shanghai Jiao Tong University, Shanghai, People's Republic of China <i>School of Electronic Information and Electrical Engineering</i><ul style="list-style-type: none">◇ M.Engr., Software Engineering, Mar. 2015<ul style="list-style-type: none">▷ <i>Dissertation:</i> "Generic and Accurate Traffic Prediction for Data-parallel Cluster Computing"▷ <i>Advisor:</i> Haibing Guan, Department of Computer Science Zhengwei Qi, School of Software Engineering◇ B.Engr., Information Security, Jul. 2012	
RESEARCH INTERESTS	Large-scale data analytics, machine learning system, distributed computing, cloud computing, datacenter networking.	
HONOURS AND AWARDS	<ul style="list-style-type: none">◇ <i>SGS Conference Grant</i>, School of Graduate Studies, University of Toronto, 2018.◇ <i>Student Scholarships</i>, ACM Symposium on Cloud Computing, 2018.◇ <i>University of Toronto Fellowship</i>, Department of ECE, University of Toronto, Sept. 2015 – Present.◇ <i>Edward S. Rogers Sr. Graduate Scholarships</i>, University of Toronto, Sept. 2015 – Present.◇ <i>Yunfeng Prize in the 2nd Aliyun Cloud Computing Developer Competition</i> (Top 1%), Alibaba Cloud Inc., 2013.◇ <i>Second-Class Postgraduate Scholarship</i>, Shanghai Jiao Tong University, 2012.◇ <i>3rd Prize in the 4th National College Information Security Contest</i>, 2011.◇ <i>Successful Participant Award</i>, Mathematical Contest in Modeling (MCM), 2011.◇ <i>Second-Class Academic Excellence Scholarship</i>, Shanghai Jiao Tong University, 2009.	

RESEARCH EXPERIENCE

- Research Assistant**, supervised by Prof. Baochun Li
University of Toronto, Toronto **Sept. 2015 – Present**
- Teaching Assistant** **Sept. 2015 – Present**
University of Toronto, Toronto
- ▷ CSC 444: Software Engineering **Fall 2017, Fall 2018**
 - ▷ CSC 369: Operating Systems **Summer 2017**
 - ▷ ESC 499: Engineering Science Final Year Project **Oct. 2016 – Apr. 2017**
 - ▷ ECE 344: Operating Systems **Fall 2016**
 - ▷ CSC 343: Introduction to Databases **Summer 2016**
 - ▷ ECE 353: Systems Software **Winter 2016, Winter 2017, Winter 2018**
 - ▷ CSC 458: Computer Networks **Fall 2015**
- Research Intern**, supervised by Dr. Yongqiang Xiong **Aug. 2013 – Aug. 2014**
Microsoft Research Asia, Beijing, P. R. China
- Visiting Research Assistant**, supervised by Prof. Kai Chen **Nov. 2013 – Dec. 2014**
Hong Kong University of Science and Technology, Hong Kong, P. R. China
- Full-Stack Developer** **Jul. 2013 – Nov. 2013**
Ramy Tech Inc., Shanghai, P. R. China
- Development Intern** **Dec. 2011 – Dec. 2012**
Intel Asia-Pacific Research and Development Ltd., Shanghai, P. R. China
- Undergraduate Research Assistant**, supervised by Dr. Xiaochao Zi **Nov. 2009 – Nov. 2010**
Shanghai Jiao Tong University, Shanghai, P. R. China

PUBLICATIONS

◇ **Journal Articles** (in reverse chronological order)

- [J1] **Hao Wang**, Baochun Li. “Mitigating Bottlenecks in Wide Area Data Analytics via Machine Learning,” in *IEEE Transactions on Network Science and Engineering*, 2018.
- [J2] Wei Bai, Li Chen, Kai Chen, Dongsu Han, Chen Tian, **Hao Wang**. “Information-Agnostic Flow Scheduling for Commodity Data Centers,” in *IEEE/ACM Transactions on Networking (ToN)*, 2017.
- [J3] Hong Zhang, Kai Chen, Wei Bai, Dongsu Han, Chen Tian, **Hao Wang**, Haibing Guan, Ming Zhang. “Guaranteeing Deadlines for Inter-Datacenter Transfers,” in *IEEE/ACM Transactions on Networking (ToN)*, 2016
- [J4] Shuihai Hu, Kai Chen, Haitao Wu, Wei Bai, Chang Lan, **Hao Wang**, Hongze Zhao, Chuanxiong Guo. “Explicit Path Control in Commodity Data Centers: Design and Applications,” in *IEEE/ACM Transactions on Networking (ToN)*, 2015
- [J5] Yang Peng, Kai Chen, Guohui Wang, Wei Bai, Yangming Zhao, **Hao Wang**, Yanhui Geng, Zhiqiang Ma, Lin Gu. “Towards Comprehensive Traffic Forecasting in Cloud Computing: Design and Application,” in *IEEE/ACM Transactions on Networking (ToN)*, 2015.

◇ **Conference Papers** (in reverse chronological order)

[C1] **Hao Wang**, Di Niu, Baochun Li. “Distributed Machine Learning with a Serverless Architecture,” in the Proceedings of IEEE INFOCOM 2019, Paris, France, April 29 - May 2, 2019. (acceptance ratio: 20%).

[C2] **Hao Wang**, Di Niu, Baochun Li. “Dynamic and Decentralized Global Analytics via Machine Learning,” in the Proceedings of the *ACM Symposium on Cloud Computing 2018 (SoCC 2018)*, Carlsbad, California, October 11-13, 2018 (acceptance ratio: 24%).

[C3] **Hao Wang**, Baochun Li. “Lube: Mitigating Bottlenecks in Wide Area Data Analytics,” in the Proceedings of the *9th USENIX Workshop on Hot Topics in Cloud Computing (HotCloud 2017)*, Santa Clara, California, July 10-11, 2017 (acceptance ratio: 32%).

[C4] Shuhao Liu, **Hao Wang**, Baochun Li. “Optimizing Shuffle in Wide-Area Data Analytics,” in the Proceedings of the 37th International Conference on Distributed Computing Systems (ICDCS 2017), Atlanta, Georgia, June 5–8, 2017 (acceptance ratio: 17%).

[C5] **Hao Wang**, Li Chen, Kai Chen, Ziyang Li, Yiming Zhang, Haibing Guan, Zhengwei Qi, Dongsheng Li, Yanhui Geng. “FlowProphet: Generic and Accurate Traffic Prediction for Data-parallel Cluster Computing,” in the Proceedings of the 35th *International Conference on Distributed Computing Systems (ICDCS 2015)*, Columbus, Ohio, June 29-July 2, 2015 (acceptance ratio: 13%).

[C6] Hong Zhang, Kai Chen, Wei Bai, Dongsu Han, Chen Tian, **Hao Wang**, Haibing Guan, Ming Zhang. “Guaranteeing Deadlines for Inter-Datacenter Transfers,” in the Proceedings of the *ACM European Conference on Computer Systems (EuroSys 2015)*, Bordeaux, France, April 21-24, 2015 (acceptance ratio: 21%).

[C7] Wei Bai, Li Chen, Kai Chen, Dongsu Han, Chen Tian, **Hao Wang**. “Practical Information-Agnostic Flow Scheduling for Data Center Networks,” in the Proceedings of the *12th USENIX Symposium on Networked Systems Design and Implementation (NSDI 2015)*, Oakland, CA, May 4-6, 2015 (acceptance ratio: 20%).

[C8] Shuihai Hu, Kai Chen, Haitao Wu, Wei Bai, Chang Lan, **Hao Wang**, Hongze Zhao, Chuanxiong Guo. “Explicit Path Control in Commodity Data Centers: Design and Applications,” in the Proceedings of the *12th USENIX Symposium on Networked Systems Design and Implementation (NSDI 2015)*, Oakland, CA, May 4-6, 2015 (acceptance ratio: 20%).

[C9] **Hao Wang**, Yangming Zhao, Haibing Guan. “On Pricing Schemes in Data Center Network with Game Theoretic Approach,” in the Proceedings of the *23rd IEEE International Conference on Computer Communications and Networks (ICCCN 2014)*, Shanghai, China, August 4-7, 2014 (acceptance ratio: 28%).

PROFESSIONAL
SERVICES

◇ Web Chair: IEEE ICNP 2017

◇ Reviewer for Journal Manuscript Submissions: IEEE Transactions on Networking, IEEE Trans-

actions on Network Science and Engineering, IEEE Transactions on Big Data, Multimedia Systems Springer Journals

- ◇ Reviewer for Conference Manuscript Submissions: USENIX HotCloud, ACM Multimedia, ACM MMSys, ACM NOSSDAV, IFIP Networking, IEEE INFOCOM, IEEE IWQoS, IEEE GLOBECOM, ACM SIGCOMM poster, IEEE IC2E, WiOpt, ACM/IEEE IoTDI

REFERENCES

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