Wei BAI

Contact Information

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Room 3661 (Lift 31/32), Academic Building
The Hong Kong University of Science and Technology
Clear Water Bay, Hong Kong, China

Education

The Hong Kong University of Science and Technology (HKUST) **Hong Kong, China**
Ph.D. in Computer Science and Engineering *Aug. 2013 - Present*
Advisor: Prof. Kai Chen
Shanghai Jiao Tong University (SJTU) **Shanghai, China**
B.E. in Information Security *Sept. 2009 - Jul. 2013*

Research Interests

Data center networking
Networked systems

Publications

Conference Publications:

1. **Enabling ECN in Multi-Service Multi-Queue Data Centers**
   Wei Bai, Li Chen, Kai Chen and Haitao Wu
   The 13th USENIX Symposium on Networked Systems Design and Implementation **(NSDI)**, 2016

2. **Providing Bandwidth Guarantees, Work Conservation and Low Latency Simultaneously in the Cloud**
   Shuihai Hu, **Wei Bai**, Kai Chen, Chen Tian, Ying Zhang and Haitao Wu
   The 35th IEEE International Conference on Computer Communications **(INFOCOM)**, 2016.

3. **Guaranteeing Deadlines for Inter-Datacenter Transfers**
   Hong Zhang, Kai Chen, **Wei Bai**, Dongsu Han, Chen Tian, Hao Wang, Haibing Guan and Ming Zhang
   The 10th European Conference on Computer Systems **(EuroSys)**, 2015.

4. **Information-Agnostic Flow Scheduling for Commodity Data Centers**
   Wei Bai, Li Chen, Kai Chen, Dongsu Han, Chen Tian and Hao Wang
   The 12th USENIX Symposium on Networked Systems Design and Implementation **(NSDI)**, 2015.

5. **Explicit Path Control in Commodity Data Centers: Design and Applications**
   Shuihai Hu, Kai Chen, Haitao Wu, **Wei Bai**, Chang Lan, Hao Wang, Hongze Zhao and Chuanxiong Guo
   The 12th USENIX Symposium on Networked Systems Design and Implementation **(NSDI)**, 2015.

6. **RAPIER: Integrating Routing and Scheduling for Coflow-aware Data Center Networks**
   Yangming Zhao, Kai Chen, **Wei Bai**, Minlan Yu, Chen Tian, Yanhui Geng, Yiming Zhang, Dan Li and Sheng Wang
   The 34th IEEE International Conference on Computer Communications **(INFOCOM)**, 2015.

7. **PAC: Taming TCP Incast Congestion Using Proactive ACK Control**
   Wei Bai, Kai Chen, Haitao Wu, Wuwei Lan and Yangming Zhao
   The 22nd IEEE International Conference on Network Protocols **(ICNP)**, 2014.

8. **HadoopWatch: A First Step Towards Comprehensive Traffic Forecasting in Cloud Computing**
   Yang Peng, Kai Chen, Guohui Wang, **Wei Bai**, Zhiqiang Ma and Lin Gu
   The 33rd IEEE International Conference on Computer Communications **(INFOCOM)**, 2014.

Workshop Publications:

1. **PIAS: Practical Information-Agnostic Flow Scheduling for Data Center Networks**
   Wei Bai, Li Chen, Kai Chen, Dongsu Han, Chen Tian and Weicheng Sun
   The 13th ACM Workshop on Hot Topics in Networks **(HotNets)**, 2014.

Journal Publications:

1. **Explicit Path Control in Commodity Data Centers: Design and Applications**
   Shuihai Hu, Kai Chen, Haitao Wu, **Wei Bai**, Chang Lan, Hao Wang, Hongze Zhao and Chuanxiong Guo
   IEEE/ACM Transactions on Networking **(ToN)**, 2015.

2. **Towards Comprehensive Traffic Forecasting in Cloud Computing: Design and Application**
   Yang Peng, Kai Chen, Guohui Wang, **Wei Bai**, Yangming Zhao, Hao Wang, Yanhui Geng, Zhiqiang Ma and Lin Gu
   IEEE/ACM Transactions on Networking **(ToN)**, 2015.

Selected Talks

Enabling ECN in Multi-Service Multi-Queue Data Centers:
- USENIX NSDI, March 2016, Santa Clara, CA

Information-Agnostic Flow Scheduling for Commodity Data Centers:
- USENIX NSDI, May 2015, Oakland, CA
- Shanghai Jiao Tong University, June 2015, Shanghai, China

Professional Activities

Reviewers:
- IEEE INFOCOM, 2015-2016.
- IEEE/ACM Transactions on Networking, 2015-.
- Computer Networks, 2015-.

External Reviewers:
- IEEE INFOCOM, 2014.
- IFIP Networking, 2014.
- IEEE LANMAN, 2014.

Teaching Experience

Teaching Assistant, HKUST COMP 4621: Computer Communication Networks I	*2016 Spring*
Teaching Assistant, HKUST COMP 3511: Operating Systems	*2014 Fall*
Teaching Assistant, HKUST COMP 4621: Computer Communication Networks I	*2014 Spring*

Selected Awards

Microsoft Research Asia Fellowship (Only 13 winners in Asia)	*2015*
Student Grant, USENIX NSDI	*2015, 2016*
Postgraduate Scholarship, The Hong Kong University of Science and Technology	*2013-2016*
Outstanding Bachelor Thesis Award, Shanghai Jiao Tong University (Top 1%)	*2013*
Second Prize, Shanghai Information Security Contest	*2012*
First Prize, National Undergraduate Electronic Design Contest-Information Security Contest	*2012*
Second-Class Academic Excellence Scholarship, Shanghai Jiao Tong University (Top 15%)	*2011, 2012*
FUDI Scholarship, Shanghai Jiao Tong University (Top 5%)	*2010*

Skills

Programming: C/C++, C#, Java, Python

Miscellaneous: Linux kernel development, application development, NS2 simulation, switch configuration

Github: http://github.com/baiwei0427/

References

Kai Chen (Advisor)
Assistant Professor
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The Hong Kong University of Science and Technology
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Dongsu Han (Collaborator)
Assistant Professor
Department of Electrical Engineering
Korea Advanced Institute of Science and Technology
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