BAOHUA YANG

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EDUCATION

Sept 2009 - Present	**Tsinghua University**, Beijing, China
	Ph.D. Candidate in Control Science and Engineering
Sept 2007 - July 2009	**Tsinghua University**, Beijing, China
	M.S.E in Department of Automation
Aug 2003 - July 2007	**Tsinghua University**, Beijing, China
	B.S.E in Department of Automation

RESEARCH INTEREST

Key technologies in traffic control and network management;
Hot topics in Software Defined Networking, Cloud Computing and Data Center Networking;
Algorithmic, optimization and performance issues in computer networking and architecture.

EXPERIENCE

Visiting Scholar   **EECS, UC Berkeley**   Sep 2010 ~ Sep 2011
Berkeley, CA 94720

Research on Network Management problems with OpenFlow/NOX in networking group of EECS department and ICSI, under the supervision of Prof. Scott Shenker.

R&D Researcher   **IBM China Research Lab**   July ~ Dec 2008
Beijing, China, 100094

Research on algorithm of multiple classification and pattern matching with Mentor Kai Zheng. Write a test bench for route lookup algorithms, evaluate the performance of several algorithms; simulate the performance of the NP pattern matching algorithm on a multicore platform. A paper was published on INFOCOM.

R&D Researcher   **Tsinghua University**   Aug 2007 ~ Oct 2009
Beijing, China, 100084

Work on the National High Technology Research and Development Program of China (863 Program) 2007AA01Z468. Design the sub-system for routing lookup and packet classification, research on the key technologies to achieve high performance. Several papers were published.

SELECTED HONOR AND AWARD

IBM Ph.D. Fellowship Awards	IBM Corporation	2011
Award of University Outstanding Counselor	Tsinghua University	2010
First Class Scholarship	Tsinghua University	2009
Award of Ph.D. Summer Practice	Tsinghua University	2009
Award of University Excellent Counselor	Tsinghua University	2008
Best Paper Award	3rd ICNS	2007
First Class Scholarship	Tsinghua University	2006

PUBLICATION

- **SMILER: Towards Practical Online Traffic Classification**
  Baohua Yang, Guangdong Hou, Lingyun Ruan, Yibo Xue and Jun Li, *7th ACM/IEEE Symposium on Architectures for Networking and Communications Systems* (*ANCS 2011*), Brooklyn, NY, October 2011. [accepted]

- **DFC: Towards Effective Feedback Flow Management for Datacenters**
  Baohua Yang, Guodong Li, Yaxuan Qi, Yibo Xue and Jun Li, *9th International Conference on Grid and Cloud Computing* (*GCC 2010*), Nanjing, China, Novermber 2010.

- **Scalable NIDS via Negative Pattern Matching and Exclusive Matching**
  Kai Zheng, Xin Zhang, Zhiping Cai, Zhijun Wang and Baohua Yang, *29th IEEE International Conference on Computer Communications* (*INFOCOM 2010*), San Diego, CA, USA, March 2010.(acceptance rate=17.5%)

- **DBS: A Bit-level Heuristic Packet classification Algorithm for High Speed Network**
  Baohua Yang, Xiang Wang, Yibo Xue and Jun Li, *15th IEEE International Conference on Parallel and Distributed System* (*ICPADS 2009*), Shenzhen, China, December 2009.(acceptance rate=28.8%)

- **Towards High-performance Network Instrusion Prevention System on Multi-core Network Service Processor**
  Xiang Wang, Yaxuan Qi, Baohua Yang, Yibo Xue and Jun Li, *15th IEEE International Conference on Parallel and Distributed System* (*ICPADS 2009*), Shenzhen, China, December 2009.(acceptance rate=28.8%)

- **Bitmap data structure: Towards high-performance network algorithms designing**
  Baohua Yang, Yaxuan Qi, Yibo Xue and Jun Li, *Computer Enginerring and Application*, Vol. 45, no.15, pp. 1-5, May 2009.

- **Discrete Bit Selection: Towards a Bit-level Heuristic Framework for Multi-dimensional Packet Classification**
  Baohua Yang, Yaxuan Qi, Fe He, Yibo Xue and Jun Li, *28th IEEE International Conference on Computer Communications* (*INFOCOM 2009*) workshop, Rio de Janeiro, Brazil, April 2009.(acceptance rate=19.7%)

- **Packet Classification Algorithms: From Theory to Practice**
  Yaxuan Qi, Lianghong Xu, Baohua Yang, Yibo Xue and Jun Li, *28th IEEE International Conference on Computer Communications* (*INFOCOM 2009*), Rio de Janeiro, Brazil, April 2009.(acceptance rate=19.7%)

- **Towards Effective Network Algorithms on Multi-core Network Processors**
  Yaxuan Qi, Zongwei Zhou, Baohua Yang, Fei He, Yibo Xue and Jun Li, *4rd ACM/IEEE Symposium on Architectures for Networking and Communications Systems* (*ANCS 2008*) short paper, May 2008.(acceptance rate=25.4%)

- **Towards High-performance Flow-level Packet Processing on Multi-core Network Processors**
  Yaxuan Qi, Bo Xu, Fei He, Baohua Yang, Jianming Yu and Jun Li, *3rd ACM/IEEE Symposium on Architectures for Networking and Communications Systems* (*ANCS 2007*), July 2007.(acceptance rate=28.5%)

- **Towards System-level Optimization for High Performance Unified Threat Management**
  Yaxuan Qi, Baohua Yang, Bo Xu, and Jun Li, *3rd International Conference on Networking and Services* (*ICNS 2007*), Athens, June 2007.(acceptance rate=32%)

PATENT

A System for Multi-field Packet Classification (China Patent CN101714948A)
Baohua Yang, Yibo Xue, Jun Li, May 2010.

COMPUTER SKILL

- Highly proficient in C/C++, Python, Java, etc.
- Proficient in development tools like GCC/VC, VIM, Eclipse, Git, etc.
- Extensive knowledge of operating systems: Unix/Linux, Windows