

# BAOHUA YANG

## Basic Info

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## Technical Websites

Homepage: [yeasy.github.io](http://yeasy.github.io)  
Projects: [github.com/yeasy](https://github.com/yeasy)  
Blog: [blog.csdn.net/yeasy](http://blog.csdn.net/yeasy)

## TECHNICAL SKILL

8 Years of R&D experience on computer networking and cloud computing; Love open-source projects, e.g., OpenStack, OpenvSwitch, OpenDaylight and Docker; Publish technical books.

- Extensive knowledge of cloud networking, e.g., virtualization, SDN, routing and security.
- Deeply understand the networking architecture, protocols, and popular techniques.
- Master common system programming languages and tools, e.g., C/C++, Python, Java.

## BACKGROUND

Jan 2013 ~ Present	IBM Research	Researcher in Cloud Computing
Sep 2007 ~ Jan 2013	Tsinghua University	M.E. and Ph.D. in Computer Networking
Sep 2010 ~ Sep 2011	UC Berkeley	Visiting Researcher on Computer Science
Aug 2003 ~ July 2007	Tsinghua University	B.E. in Department of Automation

## EXPERIENCE

<b>Architect &amp; Chief Engineer</b>	<b>Enterprise Mobile Cloud</b>	Aug 2014 ~ present
Design the architecture and implement the backend message exchanging system, main techniques including coroutine programming, database, MQTT protocol, etc.		

<b>Lead Engineer</b>	<b>OpenStack Heat Plugin</b>	Jan 2014 ~ Dec 2014
Design and develop Heat plugin for internal product, mainly including OpenStack, RESTful API etc.		

<b>Core Engineer</b>	<b>SDN-VE production</b>	Jan 2013 ~ July 2014
SDN-VE is the flagship product in SDN. Design and develop the service chaining component, mainly including SDN, OpenDaylight, and Java programming with OSGI.		

<b>Researcher &amp; Developer</b>	<b>Cloud Security Platform</b>	Jan 2013 ~ Dec 2013
Design and develop the IPS as a Service platform for feedback based security provision, mainly including OpenvSwitch, Floodlight, and IBM XGS product.		

<b>Assistant Researcher</b>	<b>Extensible SDN Control Platform</b>	Jan 2012 ~ Dec 2012
Design scalable SDN Control architecture to overcome the performance bottleneck. Hack the kernel code in OpenvSwitch and Floodlight, extend the OpenFlow protocol to implement the platform.		

<b>Visiting Scholar</b>	<b>Forwarding Techniques in SDN</b>	Sep 2010 ~ Sep 2011
Research on network management problems with OpenFlow/NOX under the supervision of Prof. Scott Shenker at the AMP Lab, UC Berkeley. Proposed a new routing mechanism to guarantee failure resilience. Publish 2 papers in top conferences (IEEE INFOCOM, ACM HotNets).		

<b>R&amp;D Staff</b>	<b>20 G bps Security Gateway System</b>	Aug 2007 ~ Oct 2009
863 program. Design and implement the forwarding and classification modules, over 20 Gbps processing on Cavium multicore platform. Published several papers in top conferences & journals (ACM ANCS, IEEE Transactions on Computers).		

## PATENT

- **Methods and System for Multituple Packet Classification**, YANG BAOHUA, XUE YIBO, LI JUN
- **Methods and Apparatus for Collaboration of Server and Switch to Optimize Data Center Network**, ZHANG YUE, ZHENG KAI, LIU TIANCHENG, LIU HANG, YANG BAOHUA
- **Methods and Apparatus for Accelerating Resource Accessing in Enterprise Network**, YANG BAOHUA, ZHANG YUE, ZHENG KAI, LIU TIAN CHENG
- **Method and Apparatus for Realizing Service Chaining in Cloud Environment**, YANG BAOHUA, ZHENG KAI, ZHANG YUE, LIU TIANCHENG
- **Method to Generate the Switch Rules Timeout in Software Defined Networks**, YANG BAOHUA, ZHENG KAI, ZHANG YUE, LIU TIANCHENG
- **Methods and Apparatus for security enhancement of DNS**, ZHANG YUE, YANG BAOHUA, ZHENG KAI, LIU TIANCHENG
- **An offloading schedule system for mobile cloud computing**, XUE CHAO, ZHANG YUE, WANG YU, YANG BAOHUA, YAN JUNCHI, YANG FAN
- **System and Apparatus for Data Transmission with Bluetooth Energy-efficient Devices**, YANG BAOHUA, SUN KEWEI, LIU TIANCHENG, XUE CHAO, LI YUBO

## SELECTED HONOR AND AWARD

IBM Ph.D. Fellowship Awards	IBM Corporation	2011	9 winners in China
First Class Scholarship	Tsinghua Univ.	2006, 2009, 2011	Top 5%

## RECENT PUBLICATION

- **Keep Forwarding: Towards K-link Failure Resilient Routing**  
Baohua Yang, Junda Liu, Scott Shenker, Jun Li and Kai Zheng, *33rd IEEE International Conference on Computer Communications (INFOCOM 2014)*, Toronto, Canada, April 2014.
- **Practical Multi-tuple Packet Classification using Dynamic Discrete Bit Selection**  
Baohua Yang, Jeffrey Fong, Weirong Jiang, Yibo Xue and Jun Li, *IEEE Transactions on Computers*, pp 424-434, Vol. 63, No. 2, Feb 2014.
- **Data-Driven Network Connectivity**  
Junda Liu, Baohua Yang, Scott Shenker and Michael Schapira, *10th ACM Workshop on Hot Topics in Networks (HotNets-X)*, Cambridge, MA, November 2011.
- **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.
- **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, November 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%)