

BAOHUA YANG

Basic Info

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Technical Websites

Homepage: yeasy.github.io
Projects: github.com/yeasy
Blog: 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

Architect & Chief Engineer	Enterprise Mobile Product	Aug 2014 ~ present
Design the architecture and implement the backend message exchanging system, main techniques including coroutine programming, database, MQTT protocol, etc.		

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

Core Engineer	SDN-VE production	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.		

Researcher & Developer	Cloud Security Platform	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.		

Assistant Researcher	Extensible SDN Control Platform	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.		

Visiting Scholar	Forwarding Techniques in SDN	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).		

R&D Staff	20 G bps Security Gateway System	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%)