

# BAOHUA YANG

## Basic Info

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## More About Me

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

Solution architect, open-source contributor and technical writer; Love innovative technologies and challenges; Interested with key techniques on Cloud, Blockchain and Distributed System.

- Extensive knowledge of innovative techniques, e.g., SDN, container, BigData and Blockchain.
- Deeply understand the distributed system architecture, protocols, and solutions.
- Actively contribute to open-sources, e.g., OpenStack, Docker, OpenvSwitch and OpenDaylight.
- Familiar with the design of distributed systems, e.g., Mesos, Spark, Kubernetes, Hyperledger.

## BACKGROUND

July 2016 ~ Present	CUFE Blockchain Lab	Technical Expert
Jan 2013 ~ Present	IBM Research	Research Scientist
Jan 2012 ~ Dec 2012	IBM Research	Research Intern
Sep 2007 ~ June 2016	Tsinghua University	M.E. and Ph.D.
Sep 2010 ~ Sep 2011	UC Berkeley	Visiting Researcher
Aug 2003 ~ July 2007	Tsinghua University	Bachelor Degree

## EXPERIENCE

<b>Chief Architect</b>	<b>Blockchain as a Service Platform</b>	Jan 2016 ~
Design the architecture, develop the core platform, and bring the platform into several Clouds.		
<b>Lead Architect &amp; Designer</b>	<b>Health Cloud Platform</b>	Jan 2015 ~
Design the architecture, and the integration solution on Softlayer Datacenters, main techniques include networking, security, services, data analysis, etc.		
<b>Architect &amp; Chief Engineer</b>	<b>Innovation Cloud Platform</b>	Jan 2015 ~ June 2016
Design and deploy the network related services for IBM Cloud, main techniques including OpenStack, ELK Stack, Vyatta, etc.		
<b>Architect &amp; Chief Engineer</b>	<b>Power Cloud Platform</b>	Jan 2015 ~ June 2016
Design and implement the access solution for IBM Power Cloud, main techniques including Softlayer Datacenter, OpenStack, VPN, Vyatta, etc.		
<b>Architect &amp; PM</b>	<b>Network Data Analysis Solution</b>	Jan 2015 ~ Dec 2015
Design and implement the analysis solution for large-scale network, main techniques including traffic sniffer techniques, ELK Stack, etc.		
<b>Architect &amp; Chief Engineer</b>	<b>Enterprise Mobile Cloud Platform</b>	Aug 2014 ~ July 2015
Design the architecture, implement the backend message exchanging system, main techniques including coroutine programming, database, MQTT protocol, etc.		
<b>Core Engineer</b>	<b>SDN-VE product</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.		

**Researcher & Developer****Cloud Security Solution**

Jan 2013 ~ Dec 2013

Design and develop the IPS as a Service platform for feedback based security provision, mainly including OpenStack, 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.

**SELECTED HONOR**

IBM Ph.D. Fellowship Awards  
First Class Scholarship

IBM Corporation  
Tsinghua Univ.

2011  
2006, 2009, 2011

9 winners in China  
Top 5%

**INVITED SPEAK**

- **Blockchain key technologies**, Technical seminar, July 2016, Beijing
- **Blockchain as a Service Platform**, Hyperledger Meetup, June 2016, Beijing
- **Optimizing and Extending Overlay Networking for Containers**, OpenStack Summit, Oct 2015, Tokyo
- **Employing Docker into Devops**, Bluemix and CloudFoundry Meetup, July 2015, Beijing

**TECHNICAL BOOKS**

- **Hyperledger Fabric Code Analysis**, open-sourced, May 2016
- **Blockchain Technical Guide**, open-sourced, Oct 2015
- **Docker Container in Action**, China Machine Press, Jan 2015
- **Docker Container Practice**, open-sourced, Aug 2014, 1,000,000+ reader
- **OpenStack Neutron: Design and Architecture**, open-sourced, Feb 2014, 1,00,000+ reader
- **Mininet: Design and Implementation**, open-sourced, Oct 2013, 1,00,000+ reader
- **OpenStack Source Code Analysis: Kuryr**, open-sourced, Nov 2015
- **OpenStack Source Code Analysis: Magnum**, open-sourced, June 2015
- **OpenStack Source Code Analysis: Neutron**, open-sourced, April 2014, 1,00,000+ reader
- **OpenStack Source Code Analysis: Heat**, open-sourced, Aug 2014

**PATENT**

- **Methods and Apparatus for Multiple 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

## RECENT PUBLICATION

- **BitCuts: Towards Fast Packet Classification for Order-independent Rules**  
Zhi Liu, Xiang Wang, Baohua Yang and Jun Li, *ACM Special Interest Group on Data Communication (ACM SIGCOMM)* poster, London, UK, August 2015.
- **LazyCtrl: Scalable Network Control for Cloud Data Centers**  
Kai Zheng, Lin Wang, Baohua Yang, Yi Sun, Yue Zhang and Steve Uhlig, *35th International Conference on Distributed Computing Systems (ICDCS)* poster, Columbus, Ohio, June 2015.
- **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.
- **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%)