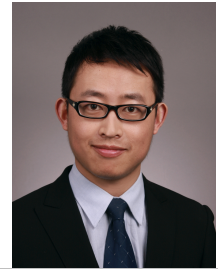


Changhua Pei

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Education

- **Tsinghua University** Advisors: Dan Pei & Youjian Zhao
Ph.D. candidate in Computer Science 2012 - now
- **Tsinghua University**
Bachelor in Computer Science 2008 - 2012

Research Projects

WiFi Union

- The leader and main code contributor of a 47-AP real world deployment in Tsinghua University campus.
- APs of WiFi Union Project are OpenWRT based firmware and are equipped with the following tools:
 - **WiLy**: Troubleshooting and optimizing of WiFi hop latency based on the Decision Tree Model trained by exhaustive measurement data for two months. (INFOCOM 2016 accepted).
 - **WING**: Distributed dynamic channel selection algorithm under the guidance of WiFi interference measurement metric, which outperforms the default algorithm in many COTS APs. (MobiSys 2016 submitted).
- This project are funded by:
 - NSFC 61472210: Cooperative Performance Improvement among Autonomous Wi-Fi Networks. Co-PI.
 - Tsinghua National Laboratory for Information Science and Technology key projects: WiFi Union. PI.

High Performance Packet Capturing on Linux Platform

- Linux driver modifications which allow high speed packet capturing, processing and sending. The testbed throughput can achieve 600Mbps without packet loss on a common configuration linux server. (CN patent: #CN103581181).
- This project is the part of the National High Technology Development program of China (863 program) under Grant No.2013AA013302.

Publications

- Conference
 - **Changhua Pei**, Youjian Zhao, Guo Chen, Ruming Tang, Yuan Meng, Minghua Ma, Ken Ling, Dan Pei. WiFi can Be the Weakest Link of Round Trip Network Latency. **INFOCOM 2016**, San Francisco, CA, USA, Apr 2016. [acceptance ratio: **18%**]

- Under Submission
 - **Changhua Pei**, Youjian Zhao, Guo Chen, Yuan Meng, Yang Liu, Ya Su, Yaodong Zhang, Ruming Tang, Dan Pei. How Much Are Your Neighbors Interfering with Your WiFi Delay? **MobiSys 2016**. (submitted).

Patent

- Youjian Zhao; **Changhua Pei**; Chengbin Quan, “Methodology and system for high speed packets capturing, processing and sending.” (in Chinese), CN103581181, 2014.02.12.

Honours

First Class Guanghua Scholarship. 2013
 The Outstanding Winner for Contribution of Tsinghua Laboratory Construction. 2011

Industry Experiences

- **Cloudacc** Beijing
Software Engineer Intern *Sept. 2012 - Dec. 2012*
 - Designing a new instant message tool based on XMPP protocol.
 - Extracting social relationships from weibo.com using OAuth2.0 API.
- **Beijing Zhongke Fulong Computer Technology Co., Ltd.** Beijing
Software Engineer Intern *June. 2014 - July. 2014*
 - Implementing an elegant and lightweight library using C++ for pipe designers which can be used for printing and reading QR code in CAD software.

References

- Youjian Zhao
 - Professor, Vice Department Chair
 - Department of Computer Science & Technology, Tsinghua University
 - zhaoyoujian@tsinghua.edu.cn
- Dan Pei
 - Associate Professor, China’s Global Talents Recruitment (Youth) Program
 - Department of Computer Science & Technology, Tsinghua University
 - peidan@tsinghua.edu.cn