

# Shuihai HU

## Contact Information

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Email: [shuaa@cse.ust.hk](mailto:shuaa@cse.ust.hk)  
Telephone: +852-65724067  
Webpage: <http://sing.cse.ust.hk/~shuihai/>

Room 3661 (Lift 31/32), Academic Building  
Hong Kong University of Science and Technology  
Clear Water Bay, Hong Kong, China

## Education

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**Hong Kong University of Science and Technology (HKUST)**

*Ph.D. in Computer Science and Engineering*

Advisor: Prof. Kai Chen

**Hong Kong, China**

*Aug. 2013 - Present*

**University of Science and Technology of China (USTC)**

*B.E. in Computer Science and Technology*

**Hefei, China**

*Sept. 2009 - June 2013*

## Research Interest

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Networked Systems and Data Center Networking

## Publications

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### Conference Publication:

- **Providing Bandwidth Guarantees, Work Conservation and Low Latency Simultaneously in the Cloud**  
Shuihai Hu, Wei Bai, Kai Chen, Chen Tian, Ying Zhang and Haitao Wu  
The 35th IEEE International Conference on Computer Communications (**INFOCOM**), 2016.
- **Explicit Path Control in Commodity Data Centers: Design and Applications**  
Shuihai Hu, Kai Chen, Haitao Wu, Wei Bai, Chang Lan, Hao Wang, Hongze Zhao, Chuanxiong Guo  
The 12th USENIX Symposium on Networked Systems Design and Implementation (**NSDI**), 2015.

### Workshop Publication:

- **MCP: Towards Minimal Delay Deadline-Driven Datacenter Transport**  
Li Chen, Shuihai Hu, Kai Chen, Haitao Wu, Danny H. K. Tsang  
**ACM HotNets**, Los Angeles, CA, November 2013.

### Journal Publication:

- **Explicit Path Control in Commodity Data Centers: Design and Applications**  
Shuihai Hu, Kai Chen, Haitao Wu, Wei Bai, Chang Lan, Hao Wang, Hongze Zhao, Chuanxiong Guo  
*IEEE/ACM Transactions on Networking (ToN)*, 2015.

### Poster:

- **Improved Path Compression for Explicit Path Control in Production Data Centers**  
Shuihai Hu, Kai Chen, Gaoxiong Zeng  
The 13th USENIX Symposium on Networked Systems Design and Implementation (**NSDI**), 2016.

## Internship Experiences

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- **Microsoft Research Asia**, Beijing, China  
Research Intern, Wireless and Networking Group  
Worked with Dr. Kun Tan and Dr. Peng Cheng. 9/2015 - 1/2016

## Teaching Experience

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Teaching Assistant, HKUST COMP 4621: Computer Communication Networks I	<i>2016 Spring</i>
Teaching Assistant, HKUST COMP 2021: Unix and Script Programming	<i>2015 Spring</i>
Teaching Assistant, HKUST COMP 3511: Operating Systems	<i>2014 Fall</i>
Teaching Assistant, HKUST COMP 2611: Computer Organization	<i>2014 Spring</i>

## Selected Awards

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<b>Student Grant</b> , USENIX NSDI	<i>2015</i>
<b>Postgraduate Scholarship</b> , HKUST	<i>2013, 2014, 2015</i>
<b>First-Class Outstanding Student Scholarship</b> , USTC (Top 5%)	<i>2012</i>
<b>Second-Class Outstanding Student Scholarship</b> , CASTC (Top 15%)	<i>2011</i>

## Professional Skills

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**Programming:** C/C++, Java, Python

**Miscellaneous:** NS2 and NS3 simulation, switch configuration, network application development (e.g., socket

programming and network traffic analyzer/sniffer), iptables and NFQUEUE