

Yang Tang

1214 Amsterdam Ave., 487 Computer Science Building, Columbia University, New York, NY 10027, United States.

Tel: +1 (646) 775-6067 Email: ty@cs.columbia.edu Website: <http://ytang.com/>

EDUCATION

Ph.D., Computer Science, Columbia University in the City of New York **Aug 2011 – Present**
Ph.D. student at the Software Systems Lab, advised by Prof. Junfeng Yang. GPA 4.0/4.0.

M.Phil., Computer Sci. & Eng., The Chinese University of Hong Kong **July 2009 – July 2011**
M.Phil. in Computer Sci. & Eng., advised by Prof. Patrick P. C. Lee and Prof. John C. S. Lui. GPA 3.89/4.0.

B.Eng., Computer Sci. & Tech., Tsinghua University, Beijing, China **Aug 2005 – July 2009**
B.Eng. in Computer Sci. & Tech. with **Excellent Graduate Award**. GPA 88.4/100 (ranking 16/107 = 14.9%).
Monitor in the freshman and senior years. **First place** in the Yearly Overall Quality Evaluation every year.
Exchange student at the Chinese University of Hong Kong in the Fall semester of 2007 with GPA 3.82/4.0.

PUBLICATIONS

Yang Tang and Junfeng Yang.

“Secure Deduplication of General Computations.”

USENIX ATC 2015, Santa Clara, CA, July 2015. (AR: 47/221 = 21.3%)

Gang Hu, Xinhao Yuan, **Yang Tang**, and Junfeng Yang.

“Efficiently, Effectively Detecting Mobile App Bugs with AppDoctor.”

EuroSys 2014, Amsterdam, the Netherlands, April 2014. (AR: 27/147 = 18.4%)

Junfeng Yang, Heming Cui, Jingyue Wu, **Yang Tang**, and Gang Hu.

“Making Parallel Programs Reliable with Stable Multithreading.”

Communications of the ACM (CACM), 57(3), pp. 58–69, March 2014.

Henry C. H. Chen, Yuchong Hu, Patrick P. C. Lee, and **Yang Tang**.

“NCcloud: A Network-Coding-Based Storage System in a Cloud-of-Clouds.”

IEEE Transactions on Computers (TC), 63(1), pp. 31–44, January 2014.

Jingyue Wu, Gang Hu, **Yang Tang**, and Junfeng Yang.

“Effective Dynamic Detection of Alias Analysis Errors.”

ESEC-FSE 2013, Saint Petersburg, Russia, August 2013. (AR: 51/251 = 20.3%)

Yang Tang, Patrick P. C. Lee, John C. S. Lui, and Radia Perlman.

“Secure Overlay Cloud Storage with Access Control and Assured Deletion.”

IEEE Transactions on Dependable and Secure Computing (TDSC), 9(6), pp. 903–916, November 2012.

Yang Tang, Phillip Ames, Sravan Bhamidipati, Ashish Bijlani, Roxana Geambasu, and Nikhil Sarda.

“CleanOS: Limiting Mobile Data Exposure with Idle Eviction.”

OSDI 2012, Hollywood, CA, October 2012. (AR: 25/215 = 11.6%)

Jingyue Wu, **Yang Tang**, Gang Hu, Heming Cui, and Junfeng Yang.

“Sound and Precise Analysis of Parallel Programs through Schedule Specialization.”

PLDI 2012, Beijing, China, June 2012. (AR: 48/255 = 18.8%)

Yuchong Hu, Henry C. H. Chen, Patrick P. C. Lee, and **Yang Tang**.

“NCcloud: Applying Network Coding for the Storage Repair in a Cloud-of-Clouds.”

FAST 2012, San Jose, CA, February 2012. (AR: 26/137 = 19.0%)

Arthur Rahumed, Henry C. H. Chen, **Yang Tang**, Patrick P. C. Lee, and John C. S. Lui.

“A Secure Cloud Backup System with Assured Deletion and Version Control.”

CloudSec (ICPP Workshop) 2011, Taipei, September 2011.

Yang Tang, Patrick P. C. Lee, John C. S. Lui, and Radia Perlman.

“FADE: Secure Overlay Cloud Storage with File Assured Deletion.”

SecureComm 2010, Singapore, September 2010. (AR: 28/112 = 25.0%)

WORK EXPERIENCE

Software Engineer in Test Intern, Google Inc., Kirkland, WA **June 2013 – Aug 2013**
 Worked on the testing of the Persistent Disk of the Google Compute Engine. Designed and Implemented a log analysis tool to show logs generated from a variety of places in a meaningful way. Found and fixed many bugs.

Software Engineering Intern, Google Inc., New York, NY **June 2012 – Aug 2012**
 Worked on DynamoRIO, a dynamic instrumentation tool. Made 32-bit applications able to run in native 64-bit mode under DynamoRIO, thereby using 64-bit-only extra registers as scratch space to improve performance.

Research Assistant, Software Systems Lab, Columbia University **Aug 2011 – Present**
 Major work included (1) UNIC, a system for securely deduplicating general computations done by mutually distrusting users, which was published at ATC'15; and (2) CleanOS, an Android-based OS that enhances mobile phone security by dynamically tracking and evicting sensitive data, which was published at OSDI'12.

Teaching Assistant, Advanced Networking and System Research Lab, CUHK **July 2009 – July 2011**
 Designed and implemented FADE, a secure overlay cloud storage with access control and file assured deletion. (Available at <http://ansrlab.cse.cuhk.edu.hk/software/fade/>) This work was published at SecureComm'10 and TDSC. Also worked on NCCloud, a distributed storage with network coding, which was published at FAST'12.

Individual Developer, State Key Lab of Intelligent Technology and Systems **Feb 2009 – July 2009**
 Developed an intelligent news event clustering system (my bachelor thesis), which automatically fetches data from the Internet, merges news within the same topic, and generates an integrated website. (Live demo system at <http://news.thuir.org/>) Got the highest thesis score (tied) among all the senior students in the department.

OPEN-SOURCE SOFTWARE

FADE <http://ansrlab.cse.cuhk.edu.hk/software/fade/>
 A C++ API on Linux, providing a secure overlay cloud storage with access control and file assured deletion. The scheme is implemented as described in the SecureComm'10 and TDSC papers.

Welly <http://welly.googlecode.com/>
 A Cocoa application on Mac OS X, bringing best user experience for browsing BBS. Softpedia 100% FREE Award (<http://mac.softpedia.com/progClean/Welly-Clean-38827.html>). WWDC 2009 student scholarship.

DynamoRIO <http://dynamorio.org/>
 A runtime code manipulation system that supports code transformations on any part of a program, while it executes. I joined the team in the summer of 2012.

SCHOLARSHIPS AND AWARDS

Certificate of Merit at the Department of Computer Science and Engineering, CUHK	2011
Merit prize, Professor Charles K. Kao Student Creativity Awards	2011
Postgraduate studentship at CUHK	2009 – 2011
Excellent Graduate of Tsinghua University	2009
Apple WWDC Student Scholarship	2009
Three-Good Student of Beijing	2009
Guanghua Scholarship	2008
Citigroup Scholarship for Finance and Information Technology (The only person in the department)	2007
Tsinghua Scholarship for Outstanding Merits	2006
Outstanding Student Leader of the Department of Computer Science and Technology	2006
12th Place, ACM International Collegiate Programming Contest, Asia Regional (Chengdu Site)	2005
Wan Bangru Gold Scholarship	2005
Outstanding Student of Beijing (Only 13 students in Beijing got this award)	2005
Bronze Medal, The 21st National Olympiad in Informatics, China	2004

SELECTED VOLUNTEER SERVICE

Athlete Service Attendant XSW, Games of the XXIX Olympiad	2008
Launched a summer program to help students in rural areas of Jiangxi Province, China	2006

PERSONAL SKILLS

Native speaker of Chinese, fluent in English and moderate in Cantonese. Experienced in C, C++, Java, Python. Familiar with DynamoRIO, LLVM, Android, Amazon Web Services, Linux kernel and network programming.