

Minho Sung

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Education: **Ph.D student** in Computer Science, College of Computing May 2001 – Present
Georgia Institute of Technology, Atlanta, GA
MS in Computer Science May 2001
Georgia Institute of Technology, Atlanta, GA
BE in Computer Science & Engineering Dept. Feb. 1995
Inha University, Incheon, Korea

Relevant Courses:

Computer Networks, Internetworking Architectures & Protocols, Computer Network Management, Database System Concepts & Design, Operating Systems, User Interface Software

Skills: Experience in programming in C, C++, Java with SWING, HTML, SQL
Knowledge of UNIX, LINUX, MS-Windows

Experience:

Summer Research Internship May 2005 – Aug 2005
Telcordia Technologies, Piscataway, NJ
- Worked on building a prototype system for a DRAMA(Dynamic Re-addressing And Management for the Army) project : open, extensible agent-based policy-based management platform for the mobile wireless ad-hoc environment. Designed and implemented Reliable UDP protocol for wireless ad-hoc communications.

Research Assistant Jan 2001 – Present
Georgia Institute of Technology
- Research about network security protocol, peer-to-peer network, Internet topology generator, network simulation and network performance measurement with Professor Jun Xu

Teaching Assistant Jan 2000 – Dec 2000
Georgia Institute of Technology
- Fall 2000 semester : CS6250 Computer Network course
- Spring 2000 semester : CS4400 Introduction to Database course

Signal Officer Mar 1995 – Jun 1997
Korean Army
- Served as Signal and Computer Operation Officer, First Lieutenant

Mainframe Operator Jun 1992 – Jun 1994
The computer center of Inha University, Incheon, Korea
- Operating MV-system and managing LAN in Inha University

Publications:

- **Network Streaming**
 - **Minho Sung**, Abhishek Kumar, Jun Xu, Li Li and Jia Wang, "Scalable and Efficient Data Streaming Algorithms for Detecting Common Contents in Internet Traffic", *2nd IEEE International Workshop on Networking Meets Databases (NetDB'06)*, Apr 2006

- Abhishek Kumar, **Minho Sung**, Jun Xu and Ellen W. Zegura, "A Data Streaming Algorithm for Estimating Subpopulation Flow Size Distribution", in the *proceedings of ACM Sigmetrics*, June 2005
- Abhishek Kumar, **Minho Sung**, Jun Xu and Jia Wang, "Data Streaming Algorithms for Efficient and Accurate Estimation of Flow Size Distribution", in the *proceedings of ACM Sigmetrics 2004/IFIP WG 7.3 Performance 2004 (Best Student Paper Award)*

- **Denial of Service - IP Traceback**

- **Minho Sung**, Jun Li, Jun Xu, Li (Erran) Li and Qi Zhao, "Large-Scale IP Traceback in High-Speed Internet: Practical Techniques and Theoretical Foundation", submitted to journal for publication.

Preliminary version was published in *proceedings of IEEE Symposium on Security and Privacy*, Oakland, California, May 2004

- **Denial of Service - Filtering**

- **Journal Version : Minho Sung** and Jun Xu, "IP Traceback-based Intelligent Packet Filtering: A Novel Technique for Defending Against Internet DDoS Attacks", *IEEE Transactions on Parallel and Distributed Systems*, Vol. 14, No. 9, Pages 861--872, Sep 2003
- **Conference Version : Minho Sung** and Jun Xu, "IP Traceback-based Intelligent Packet Filtering: A Novel Technique for Defending Against Internet DDoS Attacks", in 10th *IEEE International Conference on Network Protocols(ICNP)*, Paris, France, Nov 2002

- **Denial of Service - Trace Analysis**

- **Minho Sung**, Markus Haas and Jun Xu, "Analysis of DoS attack traffic data", 2002 *FIRST conference* (www.first.org), Hawaii, June 2002

- **MHP(Mandatory Human Participation) project**

- Jun Xu, Richard Lipton, Irfan Essa, **Minho Sung** and Yong Zhu, "Mandatory Human Participation: A New Authentication Scheme for Building Secure Systems", In the *proceedings of the 12th International Conference on Computer Communication and Networks (ICCCN)*, Dallas, October 2003. IEEE