

Cha, Sang Kil

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Education

- **Canegien Mellon University** Pittsburgh, PA
Ph.D. of Electrical and Computer Engineering Jan. 2010 – Present
 - Research Area: Software Security, Network Security, Cryptography
 - Advisor: David Brumley
- **Canegien Mellon University** Pittsburgh, PA
Master of Electrical and Computer Engineering Aug. 2008 – Dec. 2009
 - Key Courses: Introduction to Security and Policy, Mobile Pervasive Computing, Programming Usable Interface, Vulnerability, Defense Systems, and Malware Analysis, Engineering Complex Large-scale Computer System, Speech Processing, Foundations of Security and Privacy, Master Project
 - CMU Student Security Research Group - PPP
- **Korea University** Seoul, Korea
Bachelor of Electrical and Computer Engineering Mar. 2001 – Feb. 2008

Publications

- **Unleashing Mayhem on Binary Code**
Sang Kil Cha, Thanassis Avgerinos, Alexandre Rebert, and David Brumley
 - In Proceedings of IEEE Symposium on Security and Privacy, May. 2012 (Acceptance Rate: 14%)
- **Automatic Exploit Generation**
Thanassis Avgerinos, Sang Kil Cha, Brent Lim Tze Hao, and David Brumley
 - In Proceedings of NDSS Symposium, Feb. 2011, (Acceptance Rate: 20%)
- **Platform-Independent Programs**
Sang Kil Cha, Brian Pak, David Brumley, and Richard J. Lipton
 - In Proceedings of 17th ACM CCS, Oct. 2010, (Acceptance Rate: 17%)
- **SplitScreen: Enabling Efficient, Distributed Malware Detection**
Sang Kil Cha, Iulian Moraru, Jiyong Jang, John Truelove, David G. Andersen, and David Brumley
 - In Proceedings of 7th USENIX NSDI, Apr. 2010 (Acceptance Rate: 16%)

Honors and Awards

- **Ann and Martin McGuinn Graduate Fellowship** Pittsburgh, PA
Carnegie Mellon University Apr. 2011
- **KOCSEA Moon-Jung Chung Scholarship** Vienna, VA
Korean Computer Scientist and Engineers Association in America Nov. 2010
- **Carnegie Institute of Technology Dean's Tuition Fellowship** Pittsburgh, PA
Carnegie Mellon University Jan. 2010
- **Student Travel Grant Awards**
Student grant awards in conferences
 - ACM CCS, Chicago, IL, Oct. 2010
- **CSAW Research Award Finalist (Top 10 student researcher)** New York, NY
Polytechnic Institue of New York University Nov. 2009
- **Korea Research Foundation Science Scholarship** Seoul, Korea
Korea Science and Engineering Foundation 2007
- **Semester High Honors** Seoul, Korea
Korea University 2002, 2006, 2007
- **Honor Scholarship** Seoul, Korea
Korea University 2002, 2007

Projects

- **Fine: File Manager for Nokia internet tablets.** Pittsburgh, PA
• *Port Coda file system on Nokia internet tablets. (Advised by prof. Satyanarayanan)* Fall 2008
– <http://www.andrew.cmu.edu/course/15-821-finefm/>

Professional Experience

- **Research Internship** Redmond, WA
Student Internship with David Molnar and Weidong Cui at Microsoft Research Summer 2011
- **Research Assistant** Pittsburgh, PA
Working with professor David Brumley at Carnegie Mellon University Summer 2009 – Present
- **Teaching Assistant** Pittsburgh, PA
Carnegie Mellon University
 - *Vulnerability, Defense Systems, and Malware Analysis* Spring 2011
 - *Introduction to Computer and Network Security and Applied Cryptography* Fall 2010
 - *Mechatronic Design* Spring 2009
- **Korean Military Duty** SeongNam, Korea
Worked at the office of education 2003 – 2005

Talks

- **IEEE Symposium on Security and Privacy**, Presentation, *Unleashing Mayhem on Binary Code*, San Francisco, CA , Mar. 2011
- **Microsoft Research Seminar**, Presentation, *Platform-Independent Programs*, Redmond, WA , Mar. 2011
- **BK21 Short-Course Lecture on Software**, Lecture, *Introduction to Reversing and Offensive Computing*, Seoul, Korea, Dec. 27 – Dec. 31, 2010
- **ACM Conference on Computer and Communications Security**, Presentation, *Platform-Independent Programs*, Chicago, IL, Oct. 2010
- **BK21 Seminar, System & Network Security Group in Hanyang University**, Presentation, *SplitScreen: Enabling Efficient, Distributed Malware Detection*, Seoul, Korea, Jun. 2010
- **USENIX Symposium on Networked Systems Design & Implementation**, Presentation, *SplitScreen: Enabling Efficient, Distributed Malware Detection*, San Jose, CA, Apr. 2010

Competitions & Activities

- **Reviewer**
Reviewer for security conferences 2010 – Present
 - ASIACCS 2010, 2011
 - IEEE S&P 2011, 2012
- **CMU Student Security Research Group (PPP)** Pittsburgh, PA
Carnegie Mellon University Sep. 2009 – Present
 - 7th place at Defcon 19 2011
 - 1st place at 9th HUST Hacking Festival 2010
 - 1st place at RootedCon CTF 2010
 - 1st place at 8th HUST Hacking Festival 2009
 - 3rd place at HackJam 2009
- **President of Korea University Study Abroad Group** Seoul, Korea
Korea University 2007
- **Peer Tutor** Seoul, Korea
Peer tutoring program at Korea University for 1 year 2007
 - Taught Internet Programming and Data structure & algorithm
- **Guitarist in Amateur Bands** Seoul, Korea
The DDA, The Red Dara, and The 82's 1999 – 2005

Skills

Languages: C/C++, Assembly (x86, MIPS and ARM), OCaml, SML, Erlang, Ruby, Python, Perl, PHP, Javascript, L^AT_EX, SQL, Java, Visual Basic, Tcl