

Ming Chen

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Educations

- [Stony Brook University](#), Department of Computer Science, PhD (GPA 3.9) Aug. 2011 – Present
 - Advisor: Professor [Erez Zadok](#)
 - Research Interests: Filesystems and Storage Systems
- [Beihang University](#) (BUAA), Department of Computer Science and Engineering
 - Master of Engineering in Computer Application Sep. 2007 – Jan. 2010
 - Bachelor of Engineering in Computer Science and Technology Sep. 2003 – Jul. 2007

Courses

- CSE602, Advanced Computer Architecture, Prof. Mike Ferdman Fall 2012
- CSE595, Storage Systems, Prof. Erez Zadok [[CODE](#)] Spring 2012
- CSE547, Discrete Mathematics, Prof. Anita Wasilewska Spring 2012
- CSE532, Theory of Database Systems, Prof. Himanshu Gupta Spring 2012
- CSE549, Computational Biology, Prof. Steven Skiena [[CODE](#)] Fall 2011
- CSE548, Analysis of Algorithm, Prof. Michael Bender Fall 2011
- CSE506, Operating System, Prof. Don Porter [JOS] Fall 2011

Honors & Awards

- Stony Brook University Full Scholarship 2011 – 2012
- Sogou Best Rookie (10%) 2011
- BUAA Outstanding Graduate Thesis (3%) 2010
- BUAA Excellent Graduate Student (5%) 2009
- Qian Changzhao & Shen Xingyuan Scholarship (1%) 2007
- BUAA Excellent Student Honor (5%) 2005, 2007
- Excellent Study Scholarship (10%, 5%, 10%) 2004, 2005, 2006

Professional Experiences

- Research Assistant, [Filesystems and Storage systems Lab \(FSL\)](#) May. 2012 – Present
 - Research in GreenDM and GOS projects as parts of [Green Storage and Operating Systems](#)
- Teaching Assistant, [Stony Brook University](#) Aug. 2011 – Present
 - C (CSE130), C++ (CSE230), Java (CSE214), Web Design (CSE102), and OS (CSE306)
- Research Engineer, [Sogou](#), Beijing, China Jan. 2010 – Jul. 2011
 - Research and engineer in NLP as one of the core 4 members in IME-Research Group
 - Train language models for our industry leading IME product by mining web scale corpus
 - Develop MapReduce algorithms to improve the performance of Sogou Cloud Pinyin
- Research Intern, [Microsoft Research Asia](#), Beijing, China Jul. 2009 – Oct. 2009
 - Did research about image based CAPTCHA in Multimedia Security Team
 - Evaluated security by analyzing their resistance to image processing and OCR attacks
- Engineering Intern, [IBM Global Business Service](#), Beijing, China Oct. 2006 – Feb. 2007
 - Assisted IBM engineers in establishing a software engineering training program
 - Developed and documented a large Java EE project as a practical model for the program
- Research Assistant, Sino-German Joint Software Institute, Beijing, China Jan. 2005 – Jul. 2006
 - Established and finished a research project in “[Scientific Research Training Program](#)”
 - Implemented a demo in the scenario of active product recommendation in supermarket

Research & Engineering Projects

- Green Multi-Device Driver (GreenDM), FSL Jan. 2012 – Present
 - Develop an energy efficient virtual device consisting of SSD and magnetic drives
 - Take advantage of SSD's power characteristic and [Linux Device Mapper](#) (DM)
 - Benchmark energy saving and I/O performance of the DM target ([Filebench](#), Autopilot)
- Green Computer Systems (GOS), FSL May. 2012 – Present
 - Develop computer systems where power consumption is controllable using DVFS
 - Identify systems, implement controllers and analyze effectiveness (C, Matlab, Python)
- Multi-Resolution Image Store (MRIS), FSL Sep. 2012 – Present
 - Develop an object store of multi-resolution images using [multi-tier KV store](#)
 - Study the size-tiered or size-proportional property of storage workloads (C++, KV store)
- Video Surveillance System, Sinopec Daqing Sep. 2008 – Jan. 2009
 - Developed the center controller, a server and a monitor of different webcams (C++)
- Online Apparel Customization System, 28Shows Ltd. Jul. 2007 – Aug. 2008
 - Led a team and developed an online t-shirt designer (Ajax, Flex, JSP, and Java 2D)
- Web Systems, Beijing Public Security Bureau, Haidian District Jul. 2006 – Jul. 2007
 - Led a team and developed a financial report & chart system (Hibernate, JSP, JFreechart)

Publications

- Ming Chen, Zhenyong Chen, Xiao Zeng, and Zhang Xiong, "[Model Order Selection in Reversible Image Watermarking](#)," IEEE Journal of Selected Topics in Signal Processing, vol. 4, no. 3, pp. 592-604, June 2010.
- Lixin Luo, Zhenyong Chen, Ming Chen, Xiao Zeng, and Zhang Xiong, "[Reversible Image Watermarking Using Interpolation Technique](#)," IEEE Transactions on Information Forensics and Security, vol. 5, no. 1, pp. 187-193, March 2010.
- Ming Chen, Zhenyong Chen, Xiao Zeng, and Zhang Xiong, "[Reversible Data Hiding Using Additive Prediction-Error Expansion](#)," ACM Workshop on Multimedia and Security, Princeton, NJ, 2009, pp. 16-21.
- Ming Chen, Zhenyong Chen, Xiao Zeng, and Zhang Xiong, "[Reversible Image Watermarking with Full Context Prediction](#)," IEEE International Conference on Image Processing, Cairo, Egypt, 2009, pp. 4253-4256.
- Lei Gong, Yuebin Bai, Ming Chen, Depei Qian, "[Link Availability Prediction in Ad Hoc Networks](#)," IEEE International Conference on Parallel and Distributed Systems, Australia, 2008, pp. 423-427.

Academic Activities

- Review papers for [Journal of Systems and Software](#), [IEEE Transaction on Information Forensics & Security](#) and [Information Hiding](#)
- Organize Microsoft Research Asia academic talk "[Dialogue with Tony Hoare](#)"

Technical Skills

- Programming: C, C++, Java, Python, Bash Shell, SQL, JavaScript, Perl, Matlab, ActionScript
- Development: Linux kernel hacking, GNU tools (Coreutils, GCC, GDB, Autotools...), Hadoop, Visual Studio, Software frameworks, Web development tools, DBMSs

Personal Interests

- I love programming. Much of my leisure time is spent on solving [ACM/ICPC problems at POJ](#). I am proud to show off my [first programming textbook](#) signed by the author Brian W. Kernighan.
- I love basketball. I was point guard of a small team, and we won a [championship](#) once.