Xigao Li

Ph.D Candidate
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RESEARCH OVERVIEW

My research focuses on web security and privacy. On one side, I develop systems to measure and classify automated Internet bots, capture malicious behaviors, and provide security insights. On the other side, I use various crawlers to collect and extract valuable information from the Internet. Previously my work focused on the performance optimization of distributed file systems.

EDUCATION

Stony Brook University **08/2018-present**
Ph.D. Candidate, CS Department, Stony Brook, New York, U.S.A, GPA:4.0/4.0
Advisors (Co-advise): Prof. Nick Nikiforakis, Prof. Amir Rahmati

State Grid Electric Power Research Institute (SGEPRI) 09/2013-07/2016
EE Department, Nanjing, China
Degree: Master of Science in Electrical Engineering GPA:87/100

Southeast University (Transferred) 09/2013-06/2014
CSE Department, Nanjing, China
Major: Computer Science and Technology (transferred to SGEPRI) GPA:87/100

North China University of Water Resources and Electric Power (NCWU) 09/2009-07/2013
CSE Department, Zhengzhou, China
Degree: Bachelor of Engineering in Computer Science and Technology GPA:3.9/5

SKILLS

- Languages: Python (Requests, BeautifulSoup, Numpy/Pandas, Matplotlib ,etc.), C/C++, Java.
- Web server / database systems: MySQL, MSSQL, Apache, Nginx.
- Tools and techniques: Elasticsearch (ELK), RESTful API, Cloud Environments (AWS), web crawlers, kernel-level programming in C, Linux file systems.

PUBLICATIONS

- *A Hybrid Disaster-Tolerant Model with DDF Technology for MooseFS Open- Source Distributed File System,* **Xigao Li** , Lin Qian, Journal of Supercomputing, 2016
- *A Direct Data Fetch Technology Applied in Disaster-Tolerant Model of Distributed File System*, **Xigao Li**, Lin Qian, ICCSNT 2015
- *Design and development of All-in-One Computer for Distributed File System,* Lin Qian, Yan Chen, Jun Yu, Guangxin Zhu, Hengmao Pang, **Xigao Li**, ICITMI 2015

RESEARCH/TEACHING EXPERIENCE

Research Assistant at Stony Brook University 06/2019-Present

Teaching Assistant at Stony Brook University 09/2018-06/2019
- CSE 331, Computer Security Fundamentals
- CSE 509, System Security

Research Assistant at Southeast University, CSE Department 10/2013-06/2014

Research Assistant at NCWU, CSE Department 03/2011-09/2011

WORK EXPERIENCE

State Grid NARI Group Corporation, Nanjing, China

Storage Engineer of Parallel Computing Lab 07/2016-04/2018

State Grid 2016 & 2017 Storage Security Program:

- Leader of Distributed Storage Research Group
- Targeted on the optimization of Ceph
- Developed advanced "lock and push" hash map in file journal to improve the overall throughput/IOPS of distributed storage.

Intern in Parallel Computing Lab 06/2014-05/2016

State Grid 2014 & 2015 Storage Security Program:

- Leaded research in disaster-tolerant model for distributed file system
- Developed hybrid disaster-tolerant model for open-sourced DFS
- Developed with Direct-Data-Fetch (DDF) technology in performance boosting. The system provides up to 60% faster in 4KB file random R/W and provide at least 12 more seconds when switching to backup.

OTHER PROJECTS

Student Research Training Project (SRTP) 04/2012-02/2013

- Education management system for International Department of NCWU.
  - Analyzed and built the dual-campus distributed database; implemented global optimization of query on sharded tables.

Undergraduate graduation project and thesis 12/2012-05/2013

- Education management platform with CRS algorithm for International Education Dept.
  - Top 10 Capstone Paper of NCWU, best paper of CSE Dept.
  - Optimized current course arrangement algorithm with simulate anneal algorithm via an "Cycle Rewind State (CRS)" algorithm, reducing complexity into $O(n^3)$.

AWARDS

2019 Excellence in Teaching Assistant	Sep. 2019
Stony Brook University Fellowship (3 years)	Sep. 2018
2015 Best Student Award of SGEPRI	Oct. 2015
2013 Best New Student Award of SGEPRI	Sep. 2013
National Encouragement Scholarship, China (Top 2%)	Dec. 2010
Top 10 Graduation Paper of NCWU, Best Paper Award of CSE Dept	Jul . 2013
Scholarship of NCWU College (Top 5%)	Apr. 2012
Scholarship of NCWU College (Top 5%)	Apr. 2013

MISCELLANEOUS

Spoken Languages: Chinese Mandarin (native), English (professional), Japanese (moderate).