

ZHANG Xiao

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Education

- **Xi'an Jiaotong University** Xi'an,China
Master Degree of Computer Science-GPA:86.42/100; Sep. 2013 – Jun.2017
- **Xi'an Jiaotong University** Xi'an,China
Bachelor Degree of Computer Science-GPA:85.69/100; Sep. 2009 – Jun.2013
- **The Chinese University of Hong Kong** Hong Kong,China SAR
International Exchange Student Program-GPA:3.675/4.0; Jan. 2012 – Jun. 2012

Internship Experience

- **Cloud Analytics and Service Team** IBM China Research Laboratory
Research Assistant Intern Jul. 2015 – N O W
 - Lead by IBM regular research member Fanjing Meng and Sr.manager Jingming Xu;
 - Research on distinguish malicious or abnormal process using machine learning technology;
 - Research on the cutting edge docker framework-kubernetes, and enhance the scheduler to make it architecture-aware;
 - Design and develop a prototype to exploit common patterns and debug framework in commercial database.
- **NSKeyLab of the Ministry of Education** Xi'an Jiaotong University
Software Engineer Jun. 2010 – Aug. 2010
 - Develop and package some virtualized development environment;
 - Manage and maintain some Linux servers.

Research Project

- **Database Drift Pattern Analyzer** IBM China Research Laboratory
Cloud Analytics and Service Team Jul. 2015 – N O W
 - Focus the changing pattern in commercial database;
 - Patterns includes data schema, keys and related property;
 - Develop the drift collecting module;
 - Develop the suffix tree algorithm to exploit the common pattern;
 - Related patent is under review.
- **Anomaly Detection at Process in Cloud** IBM Research China
Cloud Analytics and Service Team Jul. 2015 – N O W
 - Focus the processes in cloud environment;
 - Take multi-process and multi-thread into consideration;
 - Improve the drift collecting module;
 - Adapt machine learning method to recognize the common process pattern;
 - Related patent is under review.
- **The Long Tail in Application Consolidation in Data Center** Xi'an Jiaotong University
The Institution of Computer Software and Theory Sep. 2014 – Feb. 2015
 - Focus on fully utilizing hardware performance of data center;
 - Research on the reasons of long tail in OS events level;
 - Profile the system events sequence under long tail, and train the sequence as Markov chain.
- **VRAM Re-allocation of Virtual Machine Monitor** Xi'an Jiaotong University
The Institution of Computer Software and Theory Mar. 2013 – Aug. 2013
 - Investigate on the VRAM allocation of self-crafted Virtual Machine Monitor;
 - Research on the Linux boot RAM space;
 - Use AMD nested paging instruction set.

Scholarship

- IBM Fellowship of the year 2016-2017 (1of 5 candidates in China Mainland), IBM, 2016
- PengKang Scholarship (limited to Top 5%), Xi'an Jiaotong University, 2012
- SiYuan Scholarship (limited to Top 15%), Xi'an Jiaotong University, 2011
- SiYuan Scholarship (limited to Top 15%), Xi'an Jiaotong University, 2010

Awards

- National 2nd Award in IBM Smart Earth- IoT Contest, IBM, 2014
- Excellent Award of China Northwest Region in Tencent WeChat Public Platform Development Contest, Tencent, 2013
- Outstanding Graduate, Xi'an Jiaotong University, 2013
- Excellent Bachelor Graduation Thesis (Limited to Top 1%), 2013

Publication and Patent

- Meng, F., **Zhang, X.**, Chen, P., & Xu, J. (2017, June). DriftInsight: Detecting Anomalous Behaviors in Large-scale Cloud Platform. In Cloud Computing (CLOUD), 2017 IEEE 10th International Conference on (pp. 917-920). IEEE.
- **Zhang, X.**, Meng, F., Chen, P., & Xu, J. (2016, June). TaskInsight: A fine-grained performance anomaly detection and problem locating system. In Cloud Computing (CLOUD), 2016 IEEE 9th International Conference on (pp. 917-920). IEEE.
- Meng, F. J., Wegman, M. N., Xu, J. M., **Zhang, X.**, Chen, P., & Chafle, G. (2017). IT troubleshooting with drift analysis in the DevOps era. IBM Journal of Research and Development, 61(1), 6-62.
- Cheng, Y., **Zhang, X.**, Wang, P., Zha, L., Hou, D., Qi, Y., & Ma, C.. (2017). Data Management Challenges and Event Index Technologies in High Energy Physics. Journal of Computer Research and Development[Chinese], 54(2), 258-266.
- Method and System for State-based Misbehaving System Detection, 2017, U.S. Patent Agency
- Method for Transaction Discovery in Log Sequence, 2016, U.S. Patent Agency
- AppRadar: A Touchless and Lightweight Application Discovery Approach in the Cloud, 2016, U.S. Patent Agency

Skills

Languages: C/C++,Python

Software: iPython Notebook;sklearn;scipy;numpy

English: TOEFL 106 (L28, S22; R29; W27); GRE 320 (V152; Q168; AW3.5)