JINLIN YANG
jinlin@gmail.com

Highlights

- Outstanding algorithm design and implementation skills
- Experience in building large-scale distributed monitoring and diagnostics services and tools
- Fluent in C++, C#, Java, and Perl. Comfortable with x86/x64 assembly
- Excellent oral and written communication skills

Education

Ph.D., M.CS. in Computer Science, University of Virginia, Charlottesville, VA 08/2001-05/2007
B.E. in Computer Science, Tsinghua University, Beijing, China 08/1997-07/2001

Experience

MICROSOFT CORPORATION Redmond, WA
Senior Software Development Engineer 09/2009-present
Research Software Development Engineer 09/2006-08/2009

Windows Azure Monitoring and Diagnostics Service (12/2008-present)

- Co-led the development of the monitoring and diagnostics infrastructure for Windows Azure
- Developed numerous diagnostics, reporting, and anomaly detection tools
- The monitoring system and tools have been deployed in all Windows Azure data centers

Windows Azure Storage System Monitoring and Diagnostics Service (11/2007-12/2008)

- Built three tools/services for analyzing logs of the Windows Azure Storage Service: distributed log search, error code analysis, and crash dump analysis
- These tools are routinely used to debug and diagnose problems in the storage service
- Mentored a research intern on distributed anomaly detection in summer 2008. Paper accepted by the 29th International Symposium on Reliable Distributed Systems

Advanced Instruction-level Tracing and Bug Detection Tool (09/2006-11/2007)

- Participated in the development of an advanced tool for collecting user-mode instruction-level traces and analyzing the traces to detect common program defects including memory leaks, use of uninitialized variables, and buffer overruns
- The tool was widely adopted by internal teams and has been transferred to the Windows team

MICROSOFT CORPORATION, CENTER FOR SOFTWARE EXCELLENCE Redmond, WA
Research Intern 05/2005-08/2005

- Used Perracotta to discover 56 rules for the Windows kernel APIs
- Verified the rules using ESP and found a previously unknown deadlock bug in Windows Vista

UNIVERSITY OF VIRGINIA, DEPARTMENT OF COMPUTER SCIENCE Charlottesville, VA
Research Assistant 08/2001-08/2006

- Developed *Perracotta*, a tool for inferring regular expression patterns from execution traces
- Conducted research on *Bounded Exhaustive Testing (BET) including* a case study of BET on Galileo, a dynamic fault tree analysis system used at NASA

Awards

- NSF travel award for attending ICSE May 2005

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- One of five best papers of ISSTA — July 2004
- ACM SIGSOFT CAPS travel grant for attending ISSTA — July 2004
- Outstanding Freshman Scholarship, Tsinghua University, Beijing, China — September 1997
- Fourth place of Qinghai Province in national college entrance exam — July 1997

Publications

Citation counts are from Google Scholar as of 08/2010

- Bin Xin, Patrick Eugster, Xiangyu Zhang, and **Jinlin Yang**. *Lightweight Task Graph Inference for Distributed Applications*. In 29th IEEE International Symposium on Reliable Distributed Systems. November 2010, New Delhi, India (to appear)
- **Jinlin Yang**. *Automatic Inference and Effective Application of Temporal Specifications*. Ph.D. Dissertation. May 2007, University of Virginia, Charlottesville, VA
- **Jinlin Yang**, David Evans, Deepali Bhardwaj, Thirumalesh Bhat, and Manuvir Das. *Perracotta: Mining Temporal API Rules from Imperfect Traces*. In 28th International Conference on Software Engineering. May 20-28, 2006, Shanghai, China [133 cites]
- **Jinlin Yang**. *Automatically Inferring Temporal Properties*. In Doctoral Symposium, 27th International Conference on Software Engineering. May 15-21, 2005, Saint Louis, Missouri, USA
- David Coppit, **Jinlin Yang**, Sarfraz Khurshid, Wei Le, and Kevin Sullivan. *Software Assurance by Bounded Exhaustive Testing*. IEEE Transactions on Software Engineering. Volume 31, Issue 4 [8 cites]
- **Jinlin Yang** and David Evans. *Automatically Inferring Temporal Properties for Program Evolution*. Fifteenth IEEE International Symposium on Software Reliability Engineering. November 2-5, 2004 [24 cites]
- Kevin Sullivan, **Jinlin Yang**, David Coppit, Sarfraz Khurshid, and Daniel Jackson. *Software Assurance by Bounded Exhaustive Testing*. International Symposium on Software Testing and Analysis. July 11-14, 2004, Boston, Massachusetts, USA. (Selected as one of the five best papers) [56 cites]
- **Jinlin Yang** and David Evans. *Dynamically Inferring Temporal Properties*. In ACM SIGPLAN-SIGSOFT Workshop on Program Analysis for Software Tools and Engineering. June 7-8, 2004 [32 cites]

References

Available upon request