## LIU Xi

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RESEARCH INTERESTS Formal modeling, analysis and verification of software

Services computing

Software engineering

**EDUCATION** 

Ph.D. Candidate, Computer Science and Technology

Nanjing University, June 2012 (expected)

Supervisor: Professor Xuandong Li

M.S., Computer Science and Technology

Nanjing University (upgraded to Ph.D., June 2008)

Supervisor: Professor Xuandong Li

B.S., Computer Science and Technology

Nanjing University, June 2006 GPA: 88/100 Rank: top 10%

RESEARCH &

Software Engineering Group, Nanjing Univ.

October 2005 – Now

Work Study and research in software engineering and services computing

**EXPERIENCE** 

Supervisor: Professor Xuandong Li (Head of department)

November 2010 – November 2011 University of California, Santa Barbara Research on artifact-centric modeling, formal analysis and behavior manipulation of business processes in Department of Computer Science, UCSB, USA Supervisor: Professor Oscar H. Ibarra (Fellow of ACM, IEEE and AAAS), Pro-

fessor Jianwen Su

**UNU-IIST** 

January 2010 – October 2010

Research on formal methods and compensable transactional process as a fellow of the International Institute for Software Technology of the United Nations University (UNU-IIST), Macau

Supervisor: Jeff W. Sanders (Senior research fellow)

University of Leicester, UK

September 2009 – October 2009

Research in formal modeling and verification on service-oriented systems in the

Department of Computer Science

Supervisor: Professor José Fiadeiro (Head of department)

Fudan University

August 2009

Participate in work group led by Professor Jianwen Su (UCSB) on Artifactcentric business process modeling at Fudan University, Shanghai, China Supervisor: Professor Jianwen Su (UCSB), Professor Liang Zhang (Fudan)

**PUBLICATIONS** 

LIU Xi, Jianwen SU, and Jian YANG. Preservation of Integrity Constraints by Workflow. In Proc. International Conference on Cooperative Information Systems (CoopIS), 2011. (to appear)

LIU Xi, YANG Lu, PAN Minxue, WANG Linzhang. Scenario-based web services behavior manipulation. *Chinese Journal of Software*. 2011, 22(6): 11851198. (in Chinese with English abstract)

LIU Xi, Shaofa YANG and J.W. SANDERS. Principles and validation of compensation in transactional processes. *Technical Report 433*, UNU-IIST, P.O. Box 3058, Macau, June 2010.

YANG Lu, LIU Xi, WANG Linzhang, CHEN Xin, LI Xuandong. Scenario-Based Analysis and Verification for Web Services Message Flows. *Chinese Journal of Computers*, Vol.32 No.9. pp 1759–1772. September, 2009. (in Chinese with English abstract)

LIU Guohua, LIU Xi, QIN Haihuan, SU Jianwen, YAN Zhimin, ZHANG Liang. Automated Realization of Business Workflow Specification. *1st International Workshop on SOA, Globalization, People, & Work (SG-PAW 2009)*. November, 2009. In *Service-Oriented Computing. ICSOC/ServiceWave 2009 Workshops*, volume 6275 of LNCS, pages 96108. Springer, 2010.

## SELECTED RESEARCH PROJECTS

Agentized and service oriented internetware modelling, methodology and dependability assurance

973 National Basic Research Program, 2009CB320702, 2009–2013

Reorganization and comprehension based software dependability evaluation architecture and supporting techniques

National Natural Science Foundation of China, 90818022, 2009–2012

Key technologies and supporting tools for model-driven software testing and verification

863 High Tech Plan, 2008

Software service composition and its quality assurance techniques Natural Science Foundation of Jiangsu Province, 2008–2010

A production line for analysis and evaluation of software dependability 863 High Tech Plan, 2007AA010302

Scenario-based behavior obtainment and verification of web services composition

National Natural Science Foundation of China, 60673125, 2007–2009

# HONORS & AWARDS

Scholarship under State Scholarship Fund for high-level university

joint Ph.D. student program

Fellowship from United Nations University (UNU-IIST)

Scholarship for short-term visiting student from Nanjing Univ.

Jiangsu Province Government Scholarship

The People's scholarship – Rank 2

The People's scholarship – Rank 3

September, 2003

September, 2003

## ADVANCED TRAINING

April 28 – May 9, 2008 Guizhou Normal University, Guiyang, China UNU-IIST Spring School on Foundation and Advance Software Engineering

August 1–10, 2007 Soochow University, Suzhou, China Artist2/UNU-IIST 2007 Summer School

August 7–18, 2006 East China Normal University, Shanghai, China High Dependability Computing Technology Seminar

## SCORES OF SELECTED COURSES

Mathematical logic:96, Parallel processing: 95, Object-oriented and Java Programming: 90, Compiler principle: 90, Formal language and automata: 90, Grid computing:95. Theory of computation: 93. Distributed computing: 92

#### **SKILLS**

Computer Technology

Languages: Java, C/C++, C#, WS-BPEL, SQL, BASH, PHP/HTML Operating Systems: Windows, Linux.

Foreign Languages
Fluent: English

(TOEFL iBT: 105, PhD English: 96, English for Computer Science: 98)

Basic Communication: German (Second Foreign Language: 95)

# DEVELOPED TOOLS

BASIS: Behavior Analyzer for Interactive Services v0.1.0

http://seg.nju.edu.cn/BASIS010/

SSCC: Service Scenario-based Consistency Checker

http://seg.nju.edu.cn/SSCC/

## ACADEMIC SERVICES

Participating in organizing 11th IEEE High Assurance Systems Engineering

Symposium (HASE 2008)

December 3–5, 2008, Nanjing, China

Volunteer for IEEE 2008 International Conference on Web Services (ICWS 2008) September 23 –26, 2008, Beijing, China

Participated in organizing and volunteer for 2nd IEEE International Symposium on Theoretical Aspects of Software Engineering (TASE 2008)
June 17–19, 2008, Nanjing, China

# SOCIAL AND STUDENT SERVICES

• January 2005 – January 2006

President of Microsoft Student Technology Club of Nanjing University

• July 2005

Summer camp held by Microsoft Research Asia (MSRA)

• 2002 - 2006

Core member of Microsoft Student Technology Club of Nanjing University

• October 2002 – January 2003

Member of debate team of Department of Computer Science and Technology

### REFEREE

Professor Xuandong Li

Head of Department of Computer Science and Technology

Nanjing University, Nanjing China

lxd@nju.edu.cn

Professor Jianwen Su University of California, Santa Barbara su@cs.ucsb.edu

Jeff W. Sanders Senior research fellow Institute for Software Technology of the United Nations University (UNU-IIST) jeff@iist.unu.edu