

Xiaoming Zheng

Curriculum Vitae

Computer Science Department, University of Southern California (USC)
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CURRENT POSITION

Graduate Research Assistant, Computer Science Department, Viterbi School of Engineering, University of Southern California

RESEARCH INTERESTS

Artificial Intelligence, Intelligent Agents and Multi-Agent Systems, Task Allocation and Scheduling, Operation Research and Optimization.

EDUCATION

University of Southern California, Computer Science Department, Los Angeles (California) 2004 -
Doctor of Philosophy (in progress) in Computer Science,
Advisor: Prof. Sven Koenig

University of Science and Technology of China, Computer Science Department, Hefei (China) 1999 - 2004
Bachelor of Technology in Computer Science, 2004, Thesis Topic: "Commitment-Based Agent in Distributed Computing Environment"
Advisor: Prof. Xiaoping Chen

RESEARCH EXPERIENCE

- 2004 - **University of Southern California**, Computer Science Department (California)
Graduate Research Assistant with Prof. Sven Koenig in the Single-Agent and Multi-Agent Systems Laboratory
- *Distributed Task Allocation Mechanism for Cooperative Agents*
 - *Multi-Robot Coordination on Terrain Coverage*
 - *Self-Enforcing Cooperation among Self-Interested Agents*
- 2002 - 2004 **University of Science and Technology of China**, Computer Science Department (China)
Undergraduate Research Assistant with Prof. Xiaoping Chen in the Multi-Agent Systems Laboratory
- *We proposed the concept of Commitment-Based Agent and developed the operational specification for it, which can treat the speech acts and regular actions of agents in a unified fashion.*
- also affiliate with: Logic Group
- 2003 - 2004 **University of Science and Technology of China**, School of Software Engineering (China)
Research Intern with Prof. Yu Zhang in the Global Computing Laboratory
- *We developed a new kind of web Form structure **Teleform**, which was based on W3C XForms, to meet the need of automatic process of telecom services in Anhui (China) province.*

RELEVANT COURSEWORK

Graduate Level Courses in Computer Science

- 2007 Advanced Operating Systems
2006 Robotics, Machine Learning
2005 Software Architecture, Advanced Database Systems, Software Multi-agent Systems
2004 Analysis of Algorithm, Advanced Artificial Intelligence

Graduate Level Courses in Economics and Mathematics

2007	Econometric Methods, Microeconomic Analysis and Policy
2006	Probability and Statistics, Macroeconomic Theory I
2005	Microeconomic Theory I, Microeconomic Theory II
2004	Game Theory

SELECTED AWARDS

2007	IJCAI 2007 Conference Travel Grant (University of Southern California)
2003	Paper Award in Huawei-Cup Scientific Paper Contests (University of Science and Technology of China, Huawei Information Technology Institute)
Fall 2003	Excellent Undergraduate Research Award, on Project "Key problems in Agent-Based Computing" (University of Science and Technology of China)
Spring 2003	Excellent Undergraduate Research Award, on Project "Deliberative Adaptation" (University of Science and Technology of China)
2001-2003	Outstanding Student Award for 3 years in a row (University of Science and Technology of China)
2000	Freshman Scholarship (University of Science and Technology of China)
1998	National Award in China Olympiad Contest in Physics (China)

TEACHING EXPERIENCE

Fall 2003	Organizer of the seminar course "Reason about Action and Change"(with Xiaoping Chen, Yi Zhu) Lecturer for the section "Least Commitment Planning" (two weeks)
Spring 2003	Organizer of the seminar course "BDI-modeling Theory for Intelligent Agent" (with Xiaoping Chen, Yi Zhu) Lecturer for the section "Intention Theory and Its Formalization" (four weeks)

OTHER EXPERIENCE

2006 -	Maintainer of the ICAPS conference repository (www.icaps-conference.org)
2004 -	Member of Chinese Student and Scholar Association (CSSA) in University of Southern California
2000 - 2001	Head of Advertisement Department, Student Association in University of Science and Technology of China
2001	Member of Organizing Committee for "Lenovo-Cup Software Development National-wide Invitation Competition"

COMPUTER SKILLS

Programming Languages and Tools

Java, C/C++, Lisp, Prolog, SQL, HTML, XML, RDF, Matlab, JBuilder, .Net

Operating Systems

UNIX, Linux, MS Windows, MS-DOS

LANGUAGE

Fluent in English, Mandarin Chinese (native)

NATIONALITY AND VISA STATUS

P. R. CHINA. Currently on F-1 Student VISA

MEMBERSHIP IN PROFESSIONAL ORGANIZATIONS

American Association for Artificial Intelligence (AAAI)
Institute of Electrical and Electronics Engineers (IEEE)

PUBLICATIONS

Journal Papers

Xiaoming Zheng, Sven Koenig, David Kempe and Sonal Jain. Multi-Robot Coverage of Weighted and Unweighted Terrain. *IEEE TRANSACTIONS ON ROBOTICS* (submitted), 2008.

Conference Papers

Xiaoming Zheng and Sven Koenig. Reaction Functions for Task Allocation to Cooperative Agents. In *Proceedings of the International Joint Conference on Autonomous Agents and Multi-Agent Systems (AAMAS)*, 2008 (ORAL PRESENTATION).

Xiaoming Zheng and Sven Koenig. Robot Coverage of Terrain with Non-Uniform Traversability. In *Proceedings of the IEEE International Conference on Intelligent Robots and Systems (IROS)*, pages 3757-3764, 2007 (ORAL PRESENTATION).

Sven Koenig, Craig Tovey, Xiaoming Zheng and Ilgaz Sungur. Sequential Bundle-Bid Single-Sale Auction Algorithms for Decentralized Control, In *Proceedings of the International Joint Conference on Artificial Intelligence (IJCAI)*, pages 1359-1365, 2007 (ORAL PRESENTATION).

Xiaoming Zheng, Sven Koenig and Craig Tovey. Improving Sequential Single-Item Auctions, In *Proceedings of the IEEE International Conference on Intelligent Robots and Systems (IROS)*, pages 2238-2244, 2006 (ORAL PRESENTATION). Also in: *Proceedings of the AAAI 2006 Workshop on Auction Mechanisms for Robot Coordination* (ORAL PRESENTATION).

Xiaoming Zheng, Sonal Jain, Sven Koenig and David Kempe. Forest-Based Multirobot Coverage, In *Proceedings of the IEEE International Conference on Intelligent Robots and Systems (IROS)*, pages 2318-2323, 2005 (ORAL PRESENTATION).

Xiaoming Zheng. An Abstract of Software System: Commitment-Based System, In *Proceedings of the China National Software and Application Conference (NSAC)*, 2003 (ORAL PRESENTATION).

Xiaoming Zheng and Xiaoping Chen, An Analysis of Commitment in Agent-Based Computing, In *Proceedings of the 10th China National Conference on Artificial Intelligence (CAAI)*, 2003 (ORAL PRESENTATION).

REFERENCES

Available upon Request