

LI TAN

Assistant Professor
School of Electrical Engineering and Computer Science
Washington State University

Phone: (509) 372-7167
Email: litan@wsu.edu
URL: <http://users.tricity.wsu.edu/litan>

EDUCATION **State University of New York at Stony Brook**

Ph.D. in Computer Science. May 2002.

Advisor: Rance Cleaveland.

Dissertation title: *Evidence-based Verification*.

State University of New York at Stony Brook

M.S. in Computer Science. December, 1999.

Fudan University, Shanghai, China

M.S. in Computer Science. June, 1997.

Fudan University, Shanghai, China

B.S. in Physics. June, 1992.

PUBLICATIONS (Total citation counts: 488 ¹)

Journal Papers

- [1] Yiannis Ampatzidis, Li Tan, Ronald Haley, and Matthew Whiting: *Cloud-based harvest management information system for hand-harvested specialty crops*. Pages 161-167, Volume 122, **Computers and Electronics in Agriculture**. Elsevier. 2016.
- [2] Li Tan and Bolong Zeng: *Testing Reactive Systems with Büchi-Automaton-Based Temporal Requirements*. To appear in **Advances in Intelligent Systems and Computing**. Springer. 2016.
- [3] Li Tan and Bolong Zeng: *Testing with Buchi Automata: Transition Coverage Metrics, Performance Analysis, and Property Refinement*. in **Advances in Intelligent Systems and Computing**. Volume 346. Springer. 2015.
- [4] Yongni Shao, Li Tan², Bolong Zeng and Qin Zhang: *Canopy pruning grade classification based on fast Fourier transform and artificial neural network*. In the **Transactions of the American Society of Agricultural and Biological Engineers (ASABE)**. Volume 57 No 3. 2014.
- [5] Bolong Zeng and Li Tan: *A Unified Framework for Evaluating Test Criteria in Model-Checking-Assisted Test Case Generation*. **Information Systems Frontiers**. Springer. April, 2013.
- [6] Li Tan, Shenghan Xu, Benjamin Meyer, and Brock Erwin: *An Extensible Object-Oriented and Agent-Based Framework for Modeling and Simulating Supply Chains*. in **International Journal of Information and Decision Sciences**. Vol. 4, Nos 2/3, pp. 251-267. InderScience. 2012.
- [7] Kangas LJ, Metz TO, Isaac G, Schrom BT, Ginovska-Pangovska B, Wang L, Tan L, Lewis RR, Miller JH.: *Silico Identification Software (ISIS): A Machine Learning Approach to Tandem Mass Spectral Identification of Lipids*. in **Bioinformatics**. Vol. 28, No. 13, Pages 1705-13. Oxford Press. 2012.
- [8] Li Tan: *State Coverage Metrics for Specification-Based Testing with Buchi Automata*. In Proceedings of the 5th International Conference on Tests and

¹As reported by Google scholar (scholar.google.com). Retrieved on 3/9/2016.

²corresponding author

- Proofs. Zurich, Switzerland. In the **Lecture Notes in Computer Science**. Springer-Verlag. June 30-July 01, 2011.
- [9] Li Tan and Axel Krings: *An Adaptive N-variant Software Architecture for Multi-Core Platforms: Models and Performance Analysis*³. In Proceedings of the The 11th International Conference on Computational Science and Its Applications. Santander, Spain. In the **Lecture Notes in Computer Science**, Springer-Verlag. June 20-23, 2011.
- [10] Li Tan and Shenghan Xu: *A Model-Checking-Based Approach to Risk Analysis in Supply Chain Consolidations*. In **Integrated Computer-Aided Engineering**. Volume 16, Issue 3. Pages 243-257. 2009. ISSN: 1069-2509.
- [11] Li Tan: *PlayGame: A Platform for Diagnostic Games*. In *the proceedings of the 16th International Conference on Computer Aided Verification (CAV'04)*. Volume 3114 of **Lecture Notes in Computer Science**, Springer-Verlag. 2004.
- [12] Li Tan, Jesung Kim, and Insup Lee: *Testing and Monitoring Model-based Generated Program*. In *the proceedings of the 3rd int'l workshop on runtime verification (RV'03)*, in conjunction with *the 15th International Conference on Computer Aided Verification (CAV'03)*. 2003. Extended version published In **Electronic Notes in Theoretic Computer Science**, Volume 89, No. 2. Pages 128-148. Elsevier Science. 2003.³
- [13] Li Tan and Rance Cleaveland: *Evidence-Based Model Checking*. In *the proceedings of the 14th International Conference on Computer Aided Verification (CAV'02)*, Volume 2404 of **Lecture Notes in Computer Science**, Springer-Verlag. 2002.
- [14] Li Tan: *An Abstract Schema for Equivalence Games*. In *the proceedings of the 3rd International Conference on Verification, Model Checking and Abstract Interpretation (VMCAI'02)*. Volume 2294 of **Lecture Notes in Computer Sciences**. Springer-Verlag. 2002.
- [15] Li Tan and Rance Cleaveland: *Simulation Revisited*. In *the proceedings of the 7th int'l conference on Tools and Algorithms for the Construction and Analysis of Systems (TACAS'01)*, Volume 2031 of **Lecture Notes in Computer Science**, Springer-Verlag. 2001.
- [16] Li Tan, Gongquan Xu, and Rongshen Luo: *N-dimension Scheduling Algorithms*. In *the Chinese Journal of Computers*. Volume 23. Page 105-110. 1996.

Peer-reviewed
Conference Papers

- [1] Li Tan and Bolong Zeng. *Test reactive systems with Büchi automata: acceptance condition coverage criteria and performance evaluation*. In proceedings of 2015 IEEE International Conference on Information Reuse and Integration. San Francisco, CA. August 2015. [Acceptance: 25.6%]
- [2] Li Tan, Ronald Haley, and Riley Wortman: *Cloud-Based Harvest Management System for Specialty Crops*. Proceedings of IEEE 4th Symposium on Network Cloud Computing and Applications (IEEE NCCA'15), Munich, Germany. June, 2015.
- [3] Li Tan and Riley Wortman. *Cloud-based monitoring and analysis of yield efficiency in precision farming*. In proceedings of 2014 IEEE International Conference on Information Reuse and Integration. San Francisco, CA. August 2014. [Acceptance: 22%]

³Selected by the Quantitative Analysis and Verification group, University of Oxford, as an exemplary paper on the application of probabilistic model checking. <http://www.prismodelchecker.org/bibitem.php?key=TK11>

- [4] Li Tan and Bolong Zeng. *Specification-Based Testing with Buchi Automata: Transition Coverage Criteria and Property Refinement*. In proceedings of 2014 IEEE International Conference on Info. Reuse and Integration. San Francisco, CA. August 2014. [Acceptance: 22%]
- [5] Li Tan, Suma Ponnamp, Patrick Gillham, Bob Edwards, and Erik Johnson: *Analyzing the impact of social media on social movement: a computational study on Twitter and Occupy Wall Street movement*. In Proceedings of IEEE/ACM Int'l Conf. on Advances in Social Networks Analysis and Mining (ASONAM'13). Niagara Falls, Canada, 2013. [Acceptance: 15%]
- [6] Li Tan, Ronald Haley, Riley Wortman, Yiannis Ampatzidis, and Matthew Whiting: *An Integrated Cloud-Based Platform for Labor Monitoring and Data Analysis in Precision Agriculture*. In proceedings of 2013 IEEE int'l. conf. on information reuse and integration (IRI'13). San Francisco, 2013. [Acceptance: 26%]
- [7] Yiannis Ampatzidis, Li Tan, Ronald Haley, Riley Wortman, and Matthew Whiting: *Harvest management information system for specialty crops*, Proceedings of American Society of Agricultural and Biological Engineers Annual Meeting, 2013.
- [8] Bolong Zeng and Li Tan: *Test Criteria for Model-Checking-Assisted Test Vector Generation: A Computational Study*. In the Proceedings of 2012 IEEE Information Reuse and Integration (IEEE IRI'12). IEEE Press. Las Vegas, NV. August, 2012. [Acceptance rate: 27%]
- [9] Li Tan, Ronald Haley, Riley Wortman, and Qin Zhang: *An Extensible and Integrated Software Architecture for Data Analysis and Visualization in Precision Agriculture*. In the Proceedings of 2012 IEEE Information Reuse and Integration (IEEE IRI'12). IEEE Press. Las Vegas, NV. August, 2012. [Acceptance: 27%]
- [10] Shyretha Brown, Xianyi Zhang, Hongfei Wang, Ziyi Dai, Li Tan, and Bin Yang: *Dynamic Characterization of Enzymatic Hydrolysis of Cellulose via a Broadband Stimulated Raman Spectroscopy*. In the proceedings of the 34th Symposium on Biotechnology for Fuels and Chemicals. Oak Ridge National Laboratory. New Orleans, LA. April 30-May 3, 2012.
- [11] Li Tan and Shenghan Xu: *An Algorithmic Analysis of Impact of Order Splitting on Safety Stock*. In the proceedings of the 2012 annual meeting of Production and Operation Management Society (POMS'12). Chicago, IL. April 20-23, 2012.
- [12] Li Tan and Shenghan Xu: *An Automated Verification Based Approach for Analyzing Safety Stock in Probabilistic Supply Chains*. In proceedings of the 2011 annual meeting of Production and Operation Management Society. Reno, NV. April, 2011.
- [13] Linmin Yang, Zhe Dang, Thomas R. Fischer, Min Sik Kim and Li Tan: *Entropy and Software Systems: Towards an Information-Theoretic Foundation of Software Testing*. In proceedings of the ACM Sigsoft FSE/SDP workshop on Future of software engineering research (FSE-FoSER'10). ACM press. Santa Fe, New Mexico. November, 2010. [Acceptance: 65%]
- [14] Li Tan and Axel Kring: *A Hierarchical Formal Framework for Adaptive N-variant Programs in Multi-core Systems*. In proceedings of IEEE 30th Distributed Computing Workshops - the 9th Assurance in Distributed Systems and Networks. IEEE press. Genoa, Italy. June, 2010.[Acceptance: 36.3%]

- [15] Li Tan and Shenghan Xu: ***A Formal Stochastic Analysis Approach for Order Splitting Policy***. In *proceedings of the 2010 annual meeting of Production and Operation Management Society*. Vancouver, Canada. May, 2010.
- [16] Axel Krings, Li Tan, Clint Jeffrey, and Robert Rink: ***Resilient Multi-core Systems: A Hierarchical Formal Model for N-variant Executions***, In *proceedings of ACM Cyber Security and Information Intelligence Research Workshop (ACM CSIRW'09)*, Oak Ridge National Lab. ACM Press. 2009. [Acceptance: 55%]
- [17] Li Tan and Shenghan Xu: ***Modeling and Analysis of the Impact of Demand Seasonality on Post-merger Synergy***. In *proceedings of 2009 INFORMS annual conference (INFORMS'09)*. INFORMS Press. 2009.
- [18] Shenghan Xu and Li Tan: ***An Extensible Agent-based Simulation and Modeling Framework for Supply-chain Risk Analysis***. In *proceedings of 2009 INFORMS annual conference (INFORMS'09)*. INFORMS Press. 2009.
- [19] Li Tan, Shenghan Xu, Benjamin Meyer, and Brock Erwin: ***An Agent-Based Formal Framework for Modeling and Simulating Supply Chains***. In *the proceedings of the 2009 IEEE International Conference on Information Reuse and Integration (IEEE IRI'09)*. IEEE Press. 2009. [Acceptance: 29.7%]
- [20] Shenghan Xu and Li Tan: ***Formal Analysis of Risks in Stochastic Supply Chains***. In *the proceedings of the 2008 INFORMS annual meeting (INFORMS'08)*. INFORMS Press. 2008.
- [21] Li Tan and Shenghan Xu: ***Model Check Stochastic Supply Chains***. In the *proceedings of the 2008 IEEE International Conference on Information Reuse and Integration (IEEE IRI'08)*, IEEE Press. 2008. [Acceptance: 42.6%]
- [22] Li Tan: ***Model-Based Self-Adaptive Embedded Programs with Temporal Logic Specifications***. In the *proceedings of the 6th IEEE International Conference on Quality Software (IEEE QSIC'06)*. IEEE Press. 2006. [Acceptance rate: 28%]
- [23] Li Tan: ***Model-based Self-monitoring Embedded Systems with Temporal Logic Specifications***. In the *proceedings of the 20th IEEE/ACM International Conference on Automated Software Engineering (IEEE/ACM ASE'05)*. 2005. [Acceptance: 21.6%]
- [24] Shenghan Xu and Li Tan: ***Planning Optimization as Program Verification***. In the *proceedings of the 17th Triennial Conference of the International Federation of Operational Research Societies (IFORS'05)*, IFORS Press. 2005.
- [25] Li Tan, Jesung Kim, Oleg Sokolsky, and Insup Lee: ***Model-based Testing and Monitoring for Hybrid Embedded Systems***. In *the proceedings of the 2004 IEEE International Conference on Information Reuse and Integration (IEEE IRI'04)*. IEEE Press. 2004. ⁴ [Acceptance: 61.9%]
- [26] Li Tan, Oleg Sokolsky, and Insup Lee: ***Specification-based Testing with Linear Temporal Logic***. In *the proceedings of the 2004 IEEE International Conference on Information Reuse and Integration (IEEE IRI'04)*. IEEE Press. 2004. ⁴ [Acceptance: 61.9%]

⁴Also selected as Computer and Information Science departmental papers of the University of Pennsylvania and available at <http://repository.upenn.edu/>

- Technical Reports**
- [1] Li Tan, Oleg Sokolsky, and Insup Lee: *Property-Coverage Testing*. Technical report MS-CIS-03-02. Department of Computer and Information Science, University of Pennsylvania. 2003.
 - [2] Li Tan: *Evidence-Based Verification*. Ph.D. dissertation. Department of Computer Science, State University of New York at Stony Brook, 2002.
 - [3] Rance Cleaveland, Li Tan, and Steve Sims: *Concurrency Workbench of the New Century: User Manual*. Computer Science Department, State University of New York at Stony Brook, 2000.
- Posters and Exhibitions**
- [1] **Specification-Based Testing with Bchi Automata: Criteria and Evaluation for Model-Checking-Assisted Testing** Bolong Zeng and Li Tan; Academic Showcase'15, Pullman, Washington 2015.
 - [2] **Task-Driven Labor Management** Li Tan; University of Washington Innovation open house. October 2014.
 - [3] **Task-Driven Labor Management** Li Tan; WSU Innovation open house. September 2014.
 - [4] **Crop Auditor: cloud-based labor monitoring for precision farming** Li Tan, Riley Wortman, Dan Berghofer, and Joseph Carter; WSU Academic Showcase, Pullman, Washington 2014.
 - [5] **Crop Auditor**, Li Tan, Ronald Haley, Riley Wortman, Yiannis Ampatzidis, and Matthew Whiting; WSU CPAAS EXPO'13, Prosser, Washington, September 2013;
 - [6] **Novel System for Payroll and Harvest Logistics in Specialty Crops** Yiannis Ampatzidis, Ronald Haley, Riley Wortman, Li Tan, and Matthew Whiting; Academic Showcase'13, Pullman, Washington 2013.
 - [7] **Crop Auditor**, Li Tan, Ronald Haley, Riley Wortman, Yiannis Ampatzidis, and Matthew Whiting; WSU CPAAS EXPO'13, Prosser, Washington, September 2013;
 - [8] **Novel System for Payroll and Harvest Logistics in Specialty Crops** Yiannis Ampatzidis, Ronald Haley, Riley Wortman, Li Tan, and Matthew Whiting; Academic Showcase'13, Pullman, Washington 2013.
 - [9] **A Cloud-Based Computational Framework and Application for Precision Farming** Li Tan, Wes Johnson, John McDonald, Martin Moorer, Joe Chapman, and Benjamin Killinger; Academic Showcase, Pullman, Washington 2013.
 - [10] Yiannis Ampatzidis, Riley Wortman, Ronald Haley, Li Tan, and Matthew Whiting: *Harvest Management Information System*. The annual meeting of Washington State Horticulture Association. December 3-5, 2012. Yakima, Washington.
 - [11] Yiannis Ampatzidis, Riley Wortman, Ronald Haley, Li Tan, and Matthew Whiting: *Harvest Management Information System*. The WSU CPAAS Expo. WSU Sunrise Research Orchard, Wenatchee, Washington. October 2, 2012
 - [12] Li Tan, Ronald Haley, Riley Wortman, Michael O'Toole, Samantha Curtis, and Qin Zhang: *AgriD: a data visualization, analysis, and decision support tool for precision farming*. The WSU CPAAS Expo. October 2, WSU Sunrise Research Orchard, Wenatchee, Washington. 2012.
 - [13] Yiannis Ampatzidis, Riley Wortman, Ronald Haley, Li Tan, and Matthew Whiting: *Harvest Management Information System*. The WSU Cherry Field day, Prosser, Washington. June 4, 2012.
 - [14] Li Tan, Ronald Haley, Riley Wortman, Michael O'Toole, Samantha Curtis, and Qin Zhang: *AgriD: a data visualization, analysis, and decision support tool for precision farming*. WSU Showcase. Pullman, Washington, 2011.

- [15] Arthur J. Wanner, Jr., Frankie Kwok, Brock Erwin, Li Tan, John Miller: *PathwayMATE: a Pathway Modeling, Analysis, and Testing Environment*. WSU Showcase. Pullman, Washington, 2010.
- [16] Benjamin Meyer, Brock Erwin, Li Tan, Shenghan Xu, and John Allwine: *SimRisk: A Tool for Supply-Chain Modeling, Simulation, and Risk Analysis*. WSU Showcase. Pullman, Washington, 2009.

Invited Talks

- [1] “Cloud-based Harvest Management System for Specialty Crops”, Computer Science Colloquium, University of Idaho, November 2, 2015.
- [2] “Cloud-based Agricultural Information Systems for Precision Farming”, Departmental Graduate Seminar, Department of Biological Systems Engineering, Washington State University, March 1, 2013.
- [3] “Formal Specification-Based Testing with Buchi-Automata”, Computer Science Colloquium, University of Idaho, March 27, 2012.
- [4] “Model-Based Synthesis of Adaptive Embedded Software”, Computer Science Colloquium, University of Idaho, March 12, 2009.

Patent

Systems and Methods for Collecting and Accruing Labor Activity Data Under Many-to-Many Employment Relation and with Distributed Access
 Inventor: Li Tan;
 Assignee: Washington State University;
 Status: Issued by US Patent and Trademark Office on 2/17/2015;
 Type: Utility Patent Application;
 US Patent: 8,959,594;

**Grants and Fund
 Research grants**

Precision Canopy and Water Management of Specialty Crops through Sensor-Based Decision Making
 Agency: United States Department of Agriculture;
 Status: funded. Continuing;
 Investigators: Qin Zhang (PI), Li Tan, Whiting Matthew, and R. Troy Peters;
 Amount: \$666,264.00

A total systems approach to developing a sustainable, stem-free sweet cherry production, processing, and marketing system
 Agency: United States Department of Agriculture;
 Status: funded. Continuing.
 Investigators: Matthew Whiting (PI), Amit Dhingra, Li Tan, Manoj Karkee, Nnadozie Oraguzie, Carolyn Ross, Qin Zhang; Amount: \$3,891,952.00

I-Corps Sites: Expanding the Innovation Ecosystem at Washington State University

Agency: National Science Foundation (NSF);
 Status: funded;
 PIs: Travis Woodland, Brian Kraft, Marie Mayes, and Howard Davis;
 Faculty Entrepreneur Mentors: Li Tan, Cliff Berkman, Clint Cole, Amit Dhingra, Uma Jayaram, Shane NeedHam, and Grant Norton;
 Amount: \$294,325.00;
 Dates: 1/15/2016-12/31/2018.

WSU College of Engineering and Architecture Dean’s gap fund for technology transfer

Agency: WSU College of Engineering and Architecture;

Status: funded;
Investigator: Li Tan;
Received: September 2013
Amount: \$30,000.00

Travel grant **Travel grant for NSF workshop for Aspiring PIs in Secure and Trustworthy Cyberspace (NSF SaTC/PI)**
Agency: National Science Foundation;
Investigator: Li Tan;
Place: Raleigh, North Carolina;
Date: October 15, 2012.

Development Fund **Early stage fund for university technology start-ups**
Agency: China Growth Capital;
Investigator: Li Tan;
Amount: 100,000.00;
Date: received on October 10, 2014.
This fund is to support the commercialization of a WSU's patented cloud-based and mobile-enabled labor management technology developed in my federally-funded research.

TECHNOLOGY TRANSFER **Task-Driven Labor Management**
Media coverage Featured in WSU Office of Commercialization's Technology Thursday (7/24/2014), a social media campaign for WSU technologies.

Paying by the pound
"Good fruit grower" magazine; cover story on the cloud-based labor monitoring systems. PIs: Li Tan and Matthew Whiting.

WSU Labor Monitoring Systems demo - 1st Annual Cherry Picking Festival
Sponsor: WSU Prosser
Co-hosts: Li Tan (WSU Tri-Cities) and Matt Whiting (WSU Prosser)

EXPERIENCE **Washington State University, Tri-Cities**
Research **School of Electrical Engineering and Computer Science**
experience Assistant Professor, August 2010 - Present;
Clinical Assistant Professor, August 2007 - July 2010;
Director, Experimental Software Engineering Laboratory.

Washington State University
College of Agricultural, Human, and Natural Resource Sciences
Affiliate, August 2011 - Present.

The MathWorks Inc.
February, 2004 - July, 2007
Lead research engineer, SIMULINK Verification and Validation Group.

University of Pennsylvania
Department of Computer and Information Science
July, 2002 - February, 2004
Research associate and postdoctoral fellow, System Design Research Laboratory.

State University of New York at Stony Brook

Department of Computer Science

January, 1999 - June, 2002

Ph.D. candidate and research assistant.

State University of New York at Stony Brook

Experimental Computer System Laboratory

September, 1997 - December, 1998

Research assistant.

Fudan University

The Laboratory of Computer Organization and Architecture

Shanghai, China

August, 1994 - August, 1997

Research associate, Computer Architecture Design Group.

Science Academy of China

Shanghai Institute of Optics and Fine Mechanics

September, 1992 - August, 1994

Staff physicist on semiconductor lasers.

*Teaching
experience*

Washington State University, Tri-Cities

School of Computer Science and Electrical Engineering Assistant Professor.

Established a Software Engineering curriculum in WSU Tricity, and taught every software engineering courses in the curriculum. Also developed a new Software Engineering graduate course (CptS 580).

- Cpts 317 *Automata and Formal Languages* (Fall 2007).
- Cpts 322 *Software Engineering Principles I* (Spring 2008).
- Cpts 323 *Software Design* (Spring 2008, Spring 2009, and Spring 2010).
- Cpts 422 *Software Engineering Principles II* (Fall 2007, Fall 2008, and Fall 2009).
- Cpts 421 and CptS 423 *Software Design Project I and II (Capstone)* (2008 - Present)
- CptS 580 *Advanced Software Testing and Analysis* (Springs, 2014 - Present)

University of Pennsylvania

Department of Computer and Information Science

Guest lecturer, CIS 640 *Software Reliability Methods and Embedded Systems*, Fall 2002.

State University of New York at Stony Brook

Department of Computer Science

Guest lecturer, CSE 635 *Asynchronous Systems*, Spring 2000.

Instructor, CSE 220 *Computer Organization and Systems Programming*, Summer 1998.

Teaching assistant.

Operating systems (Fall 1997), Advanced algorithms (Spring 1998), Computer architecture (Summer 1998 and Fall 1998).

The Autodesk, Inc.

Certified lecturer for AutoCAD and 3D-Studio, 1997.

ADVISING

Ph.D. Students

Bolong Zeng (Graduated(2015)); Clinical Assistant Professor in Software Engineering, WSU Everett;

Hongfei Hou (Start: 01/2012);
Suma Ponnampalath (Start: 02/2013).

Postdoctoral fellows:

Yongni Shao (Completed (09/2010-05/2012), co-advising with Qin Zhang)

Masters Students

Riley Wortman (Graduated(2015); Information Analyst, Umatilla County, Oregon;
Garima Bansal (Start: 08/2014);
Brock Erwin (01/2012-05/2013);
Ben Killinger (Start: 01/2012).

Member, Ph.D. dissertation committees

Shuangshuang Jin (2007), Atef Suleiman (2009), Arzu Gosney (2011), Lars Kangas (2012). Ahmed Serageldin (University of Idaho, Advisor: Axel Krings, 2014).

Member, Ph.D. Qualify Exam Committees Cewei Cui (Chair), Dmitry Dement'ev (Chair), Sutanay Choudhury, Zachary Wemlinger, Eric Wang, Joel Helkey, Yunbing Tan

Member, M.S. thesis Committees Brian Schrom, Daniel Best, Paola Pesantez Cabrera (2013)

**RESEARCH
TOOLS
DEVELOPED**

AGRID

A Data Visualization, Analysis, and Decision Support Tool for Precision Farming
Principle Developers: *Li Tan, Michael O'Toole, Ronald Haley, and Casey Neubauer*
Funded by: USDA (USDA CRIS-0222356).

SIMRISK

An Agent-BASed Supply-Chain Modeling, Simulation, and Risk Analysis Toolkit
Principle Developers: *Li Tan, Benjamin Meyer, Brock Erwin, and Shenghan Xu*

Model Instrumentation and Monitor Synthesis Toolkit (M²IST)

A Model-Based Design Toolkit for Self-Adaptive Embedded Systems

Principle Developer: *Li Tan*

<http://www.tricity.wsu.edu/~litan/tools/mist.html>

Funded by NSF (NSF CCR-0086147, CCR-0209024) and DARPA (DAAD 19-01-1-0473)

Concurrency Workbench of the New Century

An Automatic Verification Toolkit for Concurrent Systems

<http://www.cs.sunysb.edu/~cwb>

Principle Developers: *Rance Cleaveland, Steve Sims, and Li Tan*

Funded by NSF (CCR-9988489 and CCR-0098037) and Army Research Office (DAAD 190110003 and DAAD 190110019)

PlayGame

A Game-Based Diagnostic Tool for Debugging Concurrent System Designs

<http://www.tricity.wsu.edu/~litan/tools/playgame.html>

Principle Developers: *Li Tan and Rance Cleaveland*

Funded by NSF (CCR-9988489 and CCR-0098037) and Army Research Office (DAAD 190110003 and DAAD 190110019)

PROFESSIONAL SERVICES Technical Committee Member, IEEE Technical Committee on Knowledge Acquisition in Intelligent Systems.

Editorial Advisory Board Member, *Computers and Electronics in Agriculture* (5-year impact factor: 2.066).

Publicity Co-Chair, 14th and 15th IEEE International Conference on Information Reuse and Integration (IEEE IRI'13 and IRI'14).

Panel and tutorial chair,

- 13, 14, 15th Annual Consortium for Computing Sciences in Colleges-Northwestern Regional Conference (CCSC/NW'11, '12, '13).

Program committee member,

- IEEE Int'l Conference on Software Quality, Reliability and Security (QRS'15, QRS'16), 2015-present.
- IEEE Int'l Conference on Information Reuse and Integration (IRI'04-IRI'16), 2004-present.
- International Conference on Emerging Security Information, Systems and Technologies (SECURWARE'13-SECURWARE'16), 2013-present.
- 8th International Conference on Software Engineering Research, Management and Applications (SERA'10);
- 9th IEEE International Conference on Computer and Information Science (ICIS'10);

Journal reviewer for *Biosystems Engineering* (Elsevier) *Transaction for the American Society of Agricultural and Biological Engineers*, *ACM Transactions on Embedded Computing Systems*, *Computers and Electronics in Agriculture* (Elsevier), *Formal Methods in System Design* (Springer), *Information and Computation* (Elsevier), *Journal of Automated Reasoning* (Springer), *Software Tools for Technology Transfer* (Springer), *IEEE/ASME Transactions on Mechatronics*, *Automated Software Engineering* (Springer), etc.

Conference reviewer for ICALP, ICDCS, EMSOFT, QSIC, WTRTES, ECRTS, TACAS, IRI, and ICSE, etc.

Book reviewer for *Recent Trends Information Reuse and Integration In Academia And Industry*, Springer

Member, ACM and IEEE.

CAMPUS and COMMUNITY SERVICES

Faculty Entrepreneur Mentor, WSU NSF i-Corps site.

Committee member,

- WSU Tri-Cities Computer Science Curriculum Committee, Fall 2010 - Present;
- WSU Tri-Cities Computer Science ABET accreditation committee, 2013-2015;
- WSU tuition committee/Tri-Cities subcommittee, 2011 - 2013;
- WSU Tri-Cities scholarship committee, January 2013 - Present.
- WSU Tri-Cities engineering convocation committee. 2013-2014

Chair, WSU Tri-Cities engineering program website committee;

Faculty advisor, The Louis Stokes Alliance for Minority Participation (LSAMP; an NSF-sponsored program for promoting underrepresented students in STEM). 2015-Present.

Invited faculty representative, the round table with chancellor candidates. 2013.

Faculty representative, Graduate School Fair, Walla Walla University. October 11, 2012.

Computer Science Instructor, Latino community program in local high schools, WSU Tri-Cities. Fall 2012 - present.

Instructor, "I'm Going to College" programs for low-income K-12 students, WSU Tri-Cities early outreach program. Spring 2010 -present.

Volunteer Judge, Mid-Columbia science fair. March 2010.