ANJA REMSHAGEN

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EDUCATION

1999 - 2001	Ph.D. in Computer Science University of Texas at Dallas Dissertation: "Learning Algorithms for Logic Problems at the First and Second Levels of the Polynomial Hierarchy" Advisor: Klaus Truemper
1994 -1998	M.S. in Mathematics Minor in Computer Science University of Cologne, Germany Thesis: "Das Max-Cut-Problem in Graphen mit konstantem Geschlecht und beschränkten Kantengewichten" (The max-cut problem in graphs with constant genus and bounded edge weights) Advisor: Michael Jünger Honors: passed "with Distinction"
1991 -1994	Certificate as Mathematical-Technical Assistant Bayer, Leverkusen, Germany

EMPLOYMENT HISTORY

2015 -- present	Professor University of West Georgia Computer Science Department
2007 -- 2015	Associate Professor University of West Georgia Computer Science Department
2001 – 2007	Assistant Professor University of West Georgia Computer Science Department
1999 -- 2001	Research Assistant University of Texas at Dallas Computer Science Department
1996 -- 1998	Teaching Assistant University of Cologne, Germany Computer Science Department
1991 -- 1996	Mathematical-Technical Assistant (Industrial Programmer) Bayer, Leverkusen, Germany

COURSES TAUGHT

CS 1020	Computers and Society
CS 1030	Introduction to Computers Concepts
CS 1300	Introduction to Computer Science
CS 1301	Computer Science I
CS 1302	Computer Science II
CS 2100	Introduction to Web Development
CS 3100	Computer Organization and Architecture
CS 3110	System Architecture
CS 3151	Data Structures and Discrete Mathematics I
CS 3152	Data Structures and Discrete Mathematics II
CS 3270	Intelligent Systems
CS 4290	Theory of Computation
CS 4985	Image Processing
CS 4985	Advanced Web Technologies
CS 6251	Web Technologies I
CS 6252	Web Technologies II
CS 6985	Image Processing
XIDS 2002	What do you know about Professions - Robotics

COURSE/CURRICULUM-RELATED ACTIVITIES

- Usage of the course development software Moodle in all courses
- Course Revisions
- Curriculum development and assessment for SACS and ABET Accreditation
- Curriculum development for the Master of Science in Applied Computer Science program

RESEARCH INTERESTS

- Access control
- Automated reasoning, theorem proving
- Intelligent systems
- Computer science education

JOURNAL PUBLICATIONS

- C. Rolka and A. Remshagen. *Showing Up is Half the Battle: Assessing Different Contextualized Learning Tools to Increase the Performance in Introductory Computer Science Courses*. International Journal for the Scholarship of Teaching and Learning*: Vol. 9: No. 1, Article* 10, 2015. Available at: http://digitalcommons.georgiasouthern.edu/ij-sotl/vol9/iss1/10
- H. Kleine Büning and A. Remshagen*. An upper bound for the circuit complexity of existentially quantified Boolean formulas*. Theoretical Computer Science 411(31-33), 2864-2870, 2010

- A. Remshagen and K. Truemper. *An Effective QBF Solver for the Futile Questioning Problem*. Journal of Automated Reasoning 34(1), 31–47, 2005
- A. Remshagen and K. Truemper. *Learning in a Compiler for MINSAT Algorithms*. Theory and Practice of Logic Programming 3(3), 271–286, 2003

CONFERENCE PUBLICATIONS

- A. Remshagen, K. Gray, and T. Lee. *A Scratch Hackathon for Teens*. Proceedings of the 2018 International Conference on Frontiers in Education: Computer Science and Computer Engineering, 2018.
- A. Remshagen, K. Gray, and T. Lee. *Scratch Animation for Teen Hackathon*. Poster presentation at the Grace Hopper Celebration, 2018.
- A. Remshagen. *Flipping a Data Structures and Discrete Mathematics Class*. Proceedings of the 2015 International Conference on Frontiers in Education: Computer Science and Computer Engineering, 2015.
- A. Remshagen and C. Rolka . *Contextualized Learning Tools: Animations and Robots*. Proceedings of the 51st ACM Southeast Conference, 2014.
- A. Remshagen and L. Yang. *Consistency Checking in Access Control*. Poster paper at the 4th ACM Conference on Data Application Security and Privacy, 2014.
- A. Remshagen. *A Real-World Project to Apply Discrete Structures.* Proceedings of the International Conference on Frontiers in Education: Computer Science & Computer Engineering (FECS 2013), 422-428, 2013.
- A. Remshagen. *Consistency Checking in Privacy-Aware Access Control*. Proceedings of the 51st ACM Southeast Conference, 2013.
- A. Remshagen. *Q-MIN UNSAT: An Optimization Problem for Quantified Boolean Formulas.* IADIS International Conference Intelligent Systems and Agents 2011, Rome, Italy, July, 2011.
- U. Bubeck, H. Kleine Büning, A. Remshagen, and X. Zhao. *Expressiveness and Complexity of Subclasses of Quantified Boolean Formulas.* Propositional Proof Complexity: Theory and Practice 2010 (Workshop affiliated with the FLoC 2010/SAT 2010), July 2010.
- A. Remshagen. *The Complexity of Constrained Quantified Formulas*. IADIS International Conference Intelligent Systems and Agents 2010, Freiburg, Germany, 35–42, July, 2010
- A. Remshagen. *Making Discrete Mathematics Relevant*. Proceedings of the 48th ACM Southeast Conference, 2010.
- A. Remshagen and K. Truemper. *An Alternative Representation for QBF*. Proceedings of the 2009 International Conference on Artificial Intelligence (ICAI 2009), 531–535, July 2009.
- J. Allen, A. Remshagen, and L. Yang. *Can Virtual Worlds bring a 'Second Life' to CS Education?* Birds-of-a-Feather Session at the Richard Tapia Celebration of Diversity in Computing, 19–20, 2009.
- A. Remshagen and K. Truemper. *The Complexity of Futile Questioning*. Proceedings of the International Conference on Foundations in Computer Science, 132–138, 2007.
- K. Moreland, A. Remshagen, and K. Riehl. *An Intelligent System for Medical Diagnosis*. Grace Hopper Celebration of Women in Computing, 2006.

- B. Browning and A. Remshagen. *A SAT-Based Solver for Q-ALL SAT*. Proceedings of the 44th Annual ACM Southeast Conference, 30–33, 2006.
- A. Remshagen, L. Yang and S. Miller. *Widening the Pipeline for All Minority Students*. Birds-of-a-Feather Session at the Richard Tapia Celebration of Diversity in Computing, 25–26, 2005.
- N. Hristov and A. Remshagen. *Local Search for Quantified Boolean Formulas*. Proceedings of the 43rd Annual ACM Southeast Conference 1, 116–120, 2005.
- C. Otwell, A. Remshagen, and K. Truemper. *An Effective QBF Solver for Planning Problem*. Proceedings of the 2004 International Conference on Artificial Intelligence, 311–316, 2004.
- V. Kaibel and A. Remshagen. *On the Graph-Density of Random 0/1-Polytopes*. (Proc. RANDOM03), Aurora, Jansen, Roli, and Sahai (eds.), LNCS 2764, Springer, 318–328, 2003
- A. Remshagen and K. Truemper. *Algorithms for Logic-Based Abduction*. SAT 2002, Quantified Boolean Formulas Mini Workshop, 2002.

WORKSHOPS

- U. Bubeck, H. Kleine Büning, A. Remshagen, and X. Zhao. *Expressiveness and Complexity of Subclasses of Quantified Boolean Formulas*. Workshop on Propositional Proof Complexity, Federated Logic Conference (FLoC) 2010, Edinburgh, UK, 2010.

TECHNICAL REPORTS

- A. Remshagen. *On the Complexity of the CQF Hierarchy*. 2007.
- A. Remshagen and K. Truemper. *A Solver for the Quantified Formula Problem Q-ALL SAT*. 2005.
- G. Felici, A. Remshagen, and K. Truemper. *The Futile Questioning Problem*. IASI Research Report n. 591, Italy, Rome, Luglio 2003.

VISITING POSITIONS

Visiting Professor, University of Paderborn, Germany, Collaboration with Hans Kleine Büning, Research Project about the Circuit Complexity of Existentially Quantified Boolean Formulas, May 2009.

PROFESSIONAL ACTIVITIES

Jul/Aug 2018	Attended The 2018 International Conference on Frontiers in Education: Computer Science and Computer Engineering, Las Vegas, Nevada
Mar 2017	Attended The 48th ACM Technical Symposium on Computer Science Education, SIGCSE 2017, Seattle, Washington
May 2016	Attended UWG Innovations in Pedagogy Conference 2016, Carrollton, GA
Mar 2016	Attended The 47th ACM Technical Symposium on Computer Science Education, SIGCSE 2016, Memphis, Tennessee
April 2015	Attended UWG Innovations in Pedagogy Conference 2015, Carrollton, GA
Mar 2014	"Consistency Checking in Privacy-Aware Access Control," presented with Li Yang at the COSM Dean's Seminar Series
June 2013	Attended the ACM Symposium on Access Control Models and Technologies,

	Amsterdam, Netherlands
Sep 2012	"Introduction to Computer Science with Robotics," presented with Chris Rolka at the COSM Dean's Teaching & Learning Seminar
Mar 2012	"The Expressive Power of Quantified Boolean Formulas," presented at the College of Science and Mathematics Dean's Seminar Series
Oct 2011	Participated in the TNWIC: Invited panelist at the Graduate Panel, conducted BoF session "Green Computing" with C. Rolka, Presented Lightning talk "Step up to the Next Level"
Oct 2010	Attended the Grace Hopper Celebration of Women in Computing, Atlanta, Georgia
Feb 2010	Attended the Regional STEM Institute at the University of West Georgia
Mar 2008	"Constrained Quantified Formulas," presentation at the Department of Defense SAT Workshop, Baltimore, Maryland
Jan 2007	"Algorithm for Q-ALL SAT with Learning via Heuristics," presentation at the 11th Combinatorial Workshop, Aussois, France
Oct 2006	"An Intelligent System for Medical Diagnosis," presentation at the Grace Hopper Celebration of Women in Computing, San Diego, California
Sep 2004	"Fingerprint Matching," presentation at the Department of Mathematics of the University of West Georgia
Dec 2004	Workshop with Klaus Truemper at the University of West Georgia
Jun 2003	Workshop with Klaus Truemper at the University of Texas at Dallas
Mar 2002	Attended The 35th ACM Technical Symposium on Computer Science Education, SIGCSE 2004, Norfolk, Virginia
Mar 2003	Invited to the Seventh Combinatorial Optimization Workshop, Aussois, France
July2002	Workshop with Volker Kaibel at the Technische Universität Berlin, Germany
Jun 2002	Workshop with Giovanni Felici at the IASI-CNR, Rome, Italy
Mar 2002	Attended The 33rd ACM Technical Symposium on Computer Science Education, SIGCSE 2002, Cincinnati, Kentucky

EXTERNAL GRANTS

- Hackathon at UWG, $1500 by GreenCourt to conduct a Hackathon for teens (age 13-17) on Feb 23, 2019
- Hackathon at UWG, $1500 by GreenCourt and $500 by the Walmart Community Foundation to conduct a Hackathon for teens (age 13-17) on Feb 17, 2018
- Hackathon at UWG, $1000 by GreenCourt and $250 by the Walmart Community Foundation to conduct a Hackathon for teens (age 13-17) at uCode@UWG on Mar 18, 2017

INTERNAL GRANTS

- "Hackathon 2019: Coding for a Better Community" Student Research Assistant Program Award ($1450), 2018/2019
- "UWG Hackathon 2018" Student Research Assistant Program Award ($1650), 2017/2018

- "Carroll County Computes" Student Research Assistant Program Award ($1475), 2016/2017
- "Videos to invert the CS3151 classroom" UWise minigrant II (FY13/FY14) program ($2500), Fall 2013/Spring 2014
- "Automated Reasoning to Manage an Access Control System" Grant by the UWise Student Research Program ($6500), Spring 2013
- "Introduction to Computer Science with Robotics" Renewal of the UWise Minigrant from 2012/2013 ($6,896), collaboration with Christine Rolka, Fall 2012/Spring 2013
- "Road To Computing (Reach out and Excite Students and Parents about Computing)" Student Research Assistant Program Award ($2000), collaboration with Christine Rolka and Li Yang, 2011/2012
- "Introduction to Computer Science with Robotics" UWise Minigrant ($4,884), collaboration with Christine Rolka, 2011/2012
- "Constrained Quantified Formulas" Learning Resources Committee Faculty Research Grant ($750), 2009/2010
- "Virtual Worlds" Retention, Progression, and Graduation Initiative ($1400), collaboration with Li Yang, Spring 2008
- "Tackling a New Complexity Level in Artificial Intelligence" Sponsored Operations Faculty Research Enhancement Award ($2400), 2004/2005
- "Narrowing the Gender Gap in CS" Learning Resources Committee Faculty Research Grant ($1500), collaboration with Li Yang, 2004/2005

PROFESSIONAL MEMBERSHIPS

- Member of WeCAn (Women Computing in Atlanta)
- Member of the Association for Automated Reasoning
- Member of the Association for Logic Programming
- Member of the Upsilon Pi Epsilon (Computer Science Honor Society)
- Member of the Computer Science Teacher Association

COMMITTEE MEMBERSHIPS

I have served as member of various committees, including

- Faculty Senate
- Graduate Procedures Committee
- Rules Committee
- NSF ADVANCE IT Catalyst Grant - Best Practices Subcommittee
- COSM Advisory Committee
- COSM Research Coordinator
- COSM Curriculum Committee
- COSM Promotion and Tenure Committee
- COSM Committee for Interdisciplinary Research

- Organizing Committee for the Georgia Academy of Science Annual Meeting 2018
- Arts and Science Dean's Task Force on Female Leadership
- Arts and Science Tenure and Promotion Committee
- Arts and Science Learning Resource Committee
- Arts and Science Faculty Advisory Committee
- CS Search Committee
- CS Undergraduate Curriculum Committee
- CS Graduate Curriculum Committee
- CS Review Committee for the Online Course Development Special Initiative
- Library Representative of the CS Department
- CS Service Course Committee

UNIVERSITY SERVICE

- 2007 to present Advisor of CSWoW (Computer Science Women of West Georgia, a student organization and initiative to increase the number of female computer science students)
- 2003 to 2007 Advisor of UPE (student organization and honor society in computer science)
- 2003/2004 Student Advisor at the EXCEL Center
- 2003/2004 Mentoring of a new colleague (Jiageng Li)
- 2002/2003 Mentoring of a new colleague (Li Yang)
- Fall 2003 and Fall 2002 Coach of the UWG programming teams for the Southeastern ACM Programming Contest

NON-UNIVERSITY SERVICE

Fall 2016	Served as coach for the First Lego League team at the Carrollton Middle School
Spring 2014-Spring 2016	Organized and conducted outreach sessions at uCode@UWG teaching children in the age range 7-17 years HTML/CSS, Snap programming with Finch robots, and programming Minecraft in Java.
May 2012	Prepared and conducted an outreach workshop "Extraterrestrial Robotics!" for middle school students (part of the IMPACT Science Program)
Apr 2012	Prepared and conducted outreach activities with students and faculty (Chris Rolka and Li Yang) at the Neva Lomason Memorial Library, Carrollton
Oct 2011	Served as University representative at the Tennessee Celebration of Women in Computing
Mar 2011	Prepared and conducted an outreach workshop about computers and forensics for middle school students (part of the IMPACT Science Program)
Feb 2011	Organized a computer science fair for high school students
Dec 2011	Presented a roadshow program at three classes at Chapel Hill High School in Douglasville together with two undergraduate students
Sep 2010	Served as advisor at the Resume Clinic at the Grace Hopper Celebration of Women in Computing

Feb 2010	Prepared and conducted an outreach workshop about animations for students in grades 3-5 (part of the IMPACT Science Program)
July 2009	Served as NSF reviewer for Broadening Participation in Computing

HONORS

- Outstanding Undergraduate Teacher of the Year 2007/2008 and 2010/2011 awarded by vote of the Computer Science undergraduate students at the University of West Georgia
- 2003 Upsilon Pi Epsilon Computer Science Honor Society Inductee