

Robyn R. Lutz - Short Vita

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Positions

Professor of Computer Science, Iowa State University, 2005-Present
(Affiliate Assistant Professor 1994-2000; Associate Professor 2000-2005)
Member of Technical Staff, Jet Propulsion Laboratory/California Institute of Technology 1983-2012

Visiting positions

Visiting Associate, Caltech, 2012, 2017, 2020
Visiting Professor, University of Wisconsin, 2006, 2017
Visiting Professor, The Open University, UK, 2012
Visiting Scientist, Siemens Research Corporation, 2001
Visiting Scientist, Cornell University, 1997

Research areas

Software engineering
Software safety
Requirements analysis for molecular programming and nanoscale self-assembly
Safety-critical product lines
Requirements engineering
Formal methods for specification and verification
Fault monitoring and recovery for spacecraft autonomy

Research funding (PI unless noted)

NSF grant, 2022-2025	NASA grant, 2007-2010
NSF grant, 2019-2023	ISU grant, 2008
NSF grant, 2015-2021	NASA grant, 2007-2008
NSF grant, 2015-2021	NSF grant, 2002-2007
NSF grant, 2012-2017 (co-PI)	NASA grant, 2004-2007
NSF grant, 2011-2013	NSF grant, 2002-2007
NSF grant, 2009-2013	Iowa Space Grant Consortium, 2004
NSF grant, 2011-2013 (co-PI)	NASA grant, 2003
NSF grant, 2011-2013 (co-PI)	NASA grant, 1999-2002
NASA grant, 2009-2012	NASA grant, 1997-2000
NSF grant, 2007-2012 (co-PI)	NASA grant, 1995-1998
NSF IU/CRC grant, 2011	Rockwell Collins grant, 1996-1997
NSF grant, 2006-2011	NASA grant, 1995-1997

Publications

29 journal articles; 1 edited volume; 7 book chapters; 1 encyclopedia article; 87 conference, symposium and workshop papers

Editorial boards

IEEE Transactions on Software Engineering, 2002-2007, 2013-2017
Requirements Engineering Journal, 2002-present
Software Testing, Verification and Reliability, 2011-2013
Software and Systems Modeling, 2006-2013

Awards and honors

IEEE (Institute for Electrical and Electronic Engineering) Fellow, 2022

ACM (Association for Computing Machinery) Distinguished Scientist, 2014
IEEE International Requirements Engineering Conference Lifetime Service Award, 2021
IFIP TC2 Manfred Paul Award for Excellence in Software: Theory and Practice, Automated Software Engineering conference paper, 2014
NASA Group Achievement Award, 2012, 1998 (Cassini spacecraft mission)
Finalist, Iowa Women of Innovation Award, Academic Innovation and Leadership (Post-Secondary), Technology Association of Iowa, 2009
Award, Best Research Paper, NASA OSMA SW Assurance Symposium, 2004
Award, Best Experience Paper, International Requirements Engineering Conference 2003
Award, Most Influential Paper (10 years later), International Requirements Engineering Conference 2003
NASA Graduate Fellowship, 1987-1990

Recent conference service

Program Committee, Int'l Conference on Software Engineering (ICSE) 2022 (NIER); 2021; PB 2017
Steering Committee, Int'l Requirements Engineering Conference (RE), 2006-2011 and 2014-2019;
Program Chair, 2014; General Chair, 2006
Program Committee, ACM/IEEE Int'l Conference on Cyber-Physical Systems (ICCPs) 2019
Program Committee, Int'l Conference on Formal Methods in Software Engineering (FormalISE) 2019
Program Committee, ACM Int'l Conference on Nanoscale Computing and Communication 2018

Recent other service

International Federation for Information Processing (IFIP) Working Group 2.9 Requirements Engineering
Chaired departmental committee that developed new cross-college Software Engineering B.S. program
Chaired successful faculty search committees (for endowed chair and assistant professor)
Curriculum development of new courses on software safety, software development practices
Research Experience for Undergraduates, NSF funded, supervised 16 students 2005-present, including female students continuing to STEM Ph.D. programs

Recent invited lectures

Keynote, SPLASH Onward! 2021; Keynote, SAFECOMP 2018, Vasterås, Sweden; Keynote, RE 2016, Beijing, China; Dean's Spring Lecture, Iowa State University, 2017; Computer Science Seminar, National University of Singapore, 2019; The Blavatnik School of Computer Science, Tel Aviv U, 2015; U Heidelberg Institut für Informatik, 2015; Dept. of Computing, The Open University, UK, 2012; Dept. of Computer Science, Oxford, 2012; Faculty of Engineering Sciences, University College London, 2012.
CRA-W (Committee on the Status of Women in Computing Research) Distinguished Lecturer, 2010.
The Road Less Traveled outreach for middle school and high school girls, 2010.
U.S. Government Software Design and Productivity Coordinating Group, NITRD, 2009; Assurance Technology Program Office, Caltech/JPL, 2008; NASA Software Assurance Symposium, 2006.

Education

M.S., Computer Science, Iowa State University, 1990, NASA Graduate Fellow
Ph.D., Spanish, University of Kansas, 1980, Advisor: Raymond Souza
M.A., Spanish, University of Kansas, 1976
B.A., English, University of Kansas, with highest distinction, 1974

Ph.D. degrees supervised

Seyedehzahra (Zahra) Khoshmanesh, 2021, Discover Financial Services, Chicago, IL
Samuel Ellis (co-advised), 2017, Molecular Sciences Software Institute, Blacksburg, VA
Sandeep Krishnan, 2013, Siemens Research, Bangalore, India
Hongyu Sun, 2010, Microsoft, Redmond, WA
Jing (Janet) Liu, 2008, Advanced Technology Center, Collins Aerospace, Cedar Rapids, IA
Josh Dehlinger, 2007, Professor, Towson University, Baltimore, MD
Krzysztof Parzyszek (co-advised), 2003, Qualcomm Innovation Center, Inc., Austin, TX