

# 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)

NASA grant, 2023-2026 (co-PI)	NSF grant, 2006-2011
NSF grant, 2022-2025	NASA grant, 2007-2010
NSF grant, 2019-2024	NASA grant, 2007-2008
NSF grant, 2015-2021	NSF grant, 2002-2007
NSF grant, 2015-2021	NASA grant, 2004-2007
NSF grant, 2012-2017 (co-PI)	NSF grant, 2002-2007
NSF grant, 2011-2013	Iowa Space Grant Consortium, 2004
NSF grant, 2009-2013	NASA grant, 2003
NSF grant, 2011-2013 (co-PI)	NASA grant, 1999-2002
NSF grant, 2011-2013 (co-PI)	NASA grant, 1997-2000
NASA grant, 2009-2012	NASA grant, 1995-1998
NSF grant, 2007-2012 (co-PI)	Rockwell Collins grant, 1996-1997
NSF IU/CRC grant, 2011	NASA grant, 1995-1997

## Publications

29 journal articles; 1 edited volume; 7 book chapters; 1 encyclopedia article; 88 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) 2024; 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, 2024  
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 17 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