

**Professor WEIDER D. YU**

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**EDUCATION:**

<b>M.S. Computer Science</b>	<b>State Univ. of New York at Albany (NY)</b>
<b>Ph.D. Elec. Eng. &amp; Comp. Sci.</b>	<b>Northwestern University (IL)</b>
<b>MBA Business Administration</b>	<b>University of Chicago (IL) (in progress)</b>
<b>CERT. Security Engineering</b>	<b>Carnegie Mellon University (PA)</b>

**ACADEMIC & PROFESSIONAL EXPERIENCE:**

**Associate Professor,**

Computer Engineering Department,  
College of Engineering,  
San Jose State University, San Jose, CA.

**Distinguished Member of Technical Staff/Senior Manager**

Switching Quality System Department, Lucent Technologies-  
Bell Labs (formerly called AT&T Bell Laboratories), Naperville, Illinois.

**Member of Technical Staff,** Software Productivity/Quality and  
Advanced Design Technology Group, AT&T Bell Laboratories,  
Naperville, IL.

**Adjunct Associate Professor,**

Electrical Engineering and Computer Science Department,  
University of Illinois, Chicago, IL.

**Adjunct Assistant Professor,**

Electrical Engineering and Computer Science Department,  
University of Illinois, Chicago, IL.

**Computer Laboratory Coordinator,**

Computer Science Research Laboratory,  
Electrical Engineering and Computer Science Department,  
Northwestern University, Evanston, IL.

**PRESENT POSITION:**

**Professor**

Computer Engineering Department,  
College of Engineering,  
San Jose State University,  
San Jose (Silicon Valley), California 95192-0180

**FOCUSED RESEARCH AND INTEREST AREAS:**

Software security, web service security, cloud computing security, computer security, security engineering and privacy.

Web based software engineering (requirement, design, implementation and testing), web services and cloud computing software development technology.

Service Oriented Architecture (SOA), SOA oriented software modeling and development, cloud service engineering, service governance.

eHealthcare and mHealthcare software and embedded system technology.

Mobile systems technology (smartphone, Android and Windows based smartphone, iPhone, tablet, iPad, etc.).

Software engineering process, Agile process, Personal Software Process (PSP), Team Software Process (TSP).

Software and service oriented quality management and engineering.

The article was first published online August 14, 2002, DOI: 10.1002/bltj.2101, Wiley Online Library.

2. Weider D. Yu, Alvin Barshefsky, and Steel Huang, "An Empirical Study of Software Fault Preventable at Personal Level in A Very Large Software Development Environment," *Bell Labs Technical Journal*, Volume 2, Number 3, summer 1997, pp. 221-232. The article was first published online August 14, 2002, DOI: 10.1002/bltj.2076, Wiley Online Library.
3. Weider D. Yu, "Verifying Software Requirements: A Requirement Tracing Methodology and Its Software Tool," *IEEE Communications Journal on Selected Areas in Communications*, Volume 12, Number 2, February 1994, pp. 234-240.
4. Weider D. Yu, D. Paul Smith, and Steel T. Huang, "Software Productivity Measurements," *AT&T Technical Journal*, Volume 69, Number 3, May/June 1990, pp. 110-120. The article was first published online July 29, 2013, DOI: 10.1002/j.1538-7305.1990.00339.x, Wiley Online Library.
5. Weider D. Yu, "A Modeling Approach to Software Cost Estimation," *IEEE Communications Journal on Selected Areas in Communications*, Volume 8, Number 2, February 1990.
6. Weider D. Yu, Will E. Lehder, and D. Paul Smith, "Software Estimation Technology", *AT&T Technical Journal*, Volume 67, Number 4, July/August 1988, pp. 10-18. The article was first published online July 29, 2013, DOI: 10.1002/j.1538-7305.1988.tb00634.x, Wiley Online Library.
7. Weider D. Yu, Archana Ramani, "Design and Implementation of A Personal Mobile Medical Assistant," *The Journal on Information Technology in Healthcare*, Volume 4, Number 2, April 1 2006, pp. 92-102.
8. Weider D. Yu, Yan Chen, "Partitionable Mobile File System over Ad-Hoc Networks," *The International Journal of Computer Science and Network Security*, Volume 6, Number 7B, July 30 2006, pp. 113-126.
9. Weider D. Yu, Rachana B. Radhakrishna, Sumana Pingali, Vijaya Kolluri, "Modeling the Measurements of QoS Requirements in Web Services Systems," *SIMULATION Journal-Transactions of The Society for Modeling and Simulation International*, Volume 83, Number 1, June 28 2007, pp. 75-91.

13. Weider D. Yu, Lavanya Balamurali, Sandeepa Ameerichetty, Warren Ng, "Security and Privacy in a U-Healthcare System Using Wireless Smart Mobile Agents and EHR," *Journal of eHealth Technology and Applications*, Volume 8, Number 1, July 2010, pp. 58-61.
14. Weider D. Yu, Radhika Bhagwat, "Modeling Emergency and Telemedicine Health Support System: A Service Oriented Architecture Approach Using Cloud Computing," *Journal of E-Health and Medical Communications*, Volume 2, Number 3, July-September 2011, pp. 63-88.
15. Weider D. Yu, Jatin Patel, Vishal Mehta, Ashih Joshi, "An Approach to Design a SOA Services Governance Architecture for an u-Healthcare System with Mobility," *Journal of E-Health and Medical Communications*, Volume 3, Number 2, April-June 2012, pp. 36-65.
16. Weider D. Yu, Ashwini Sathyanarayana, Srivarsha Rao, Miby Jose Panakkel, "A SOA Based System Development Methodology for Cloud Computing Environment: Using uHealthcare as Practice," *Journal of E-Health and Medical Communications*, Volume 3, Number 4, October-December 2012, pp. 42-63.
17. Weider D. Yu, Xiao Su, Jason Hansen, "A Smartphone Design Approach to User Communication Interface for Administering Storage System Network," *Journal of Network Protocols and Algorithms*, Volume 4, Number 4, December 2012, pp. 126-155.

#### **Book Publication:**

18. Weider D. Yu, Art Price, and Margie Wells, "Best Current Practices: Software Cost Estimation," *AT&T Best Current Practices (Book Series)*, AT&T Bell Laboratories, 1992.

#### **Conference Paper Publications:**

19. Weider D. Yu, "Measuring Software Productivity," *Proceedings of the 15th International Computer Software Applications Conference*, Tokyo, Japan, IEEE Computer Society, 1991.
20. Weider D. Yu, "An 5ESS Switch On-line Recording Tools for Software Review and Inspection," *Bell Labs Technical Memorandum*, AT&T Bell Laboratories, October 1991.
21. Weider D. Yu, "Software Design Checklists," *Bell Labs Technical Memorandum*, AT&T Bell Laboratories, July 1991.
22. Weider D. Yu, "Improving the Quality of Software Cost Estimation," *Proceedings of the National Communication Forum*, Volume 42, Number 2, October 1988.
23. Weider D. Yu, "5ESS Switch Project Requirement Traceability Methodology and Its Tools - Project Standard", 55321-890908-01, *Bell Labs Technical Memorandum*, AT&T Bell Laboratories, September 1989.

24. Weider D. Yu, "5ESS Switch Software Quality Factors," 55321-890905-01, *Bell Labs Technical Memorandum*, AT&T Bell Laboratories, September 1989.

*Telecommunication Networks-sponsored by British Computer Society(BCS) and Microsoft, October 3-7, 2005, Microsoft Center at Reading, U.K., pp. 298-303.*

39. Weider D. Yu, Archana Mansukhani, "An Approach in Designing Authorization Layer for Web Service Software Using Expert System Inference Engine," in *Proc. The 8<sup>th</sup> International Conference on Computer Science and Informatics (ICCSI 2005)*, July 21-26, 2005, Salt Lake City, Utah, USA, pp. 316-321.
40. Weider D. Yu, Archana Ramani, "Design and Implementation of A Personal Mobile Medical Assistant," in *Proc. The 7<sup>th</sup> IEEE International Conference on Enterprise Networking and Computing in Healthcare Industry (HEALTHCOM 2005)*, June 23-25, 2005, Busan, Korea, pp. 172-178.
41. Weider D. Yu, Archana Mansukhani, "An Intelligent Authorization Security Layer for Web Services Based on Service Oriented Architecture Platform," in *Proc. The 2nd IEEE International Workshop on Collaborative Computing, Integration, and Assurance (WCCIA 2006)*, April 27-28, 2006, Gyeongju, Korea, USA, pp. 190-195.
42. Weider D. Yu, Ellora Nayak, "ARSL: A Language for Authorization Rule Specification in Software Security," in *Proc. The 11<sup>th</sup> IEEE International Symposium on Computers and Communications (ISCC 2006)*, June 26-29, 2006, Cagliari, Sardinia, Italy, pp. 54-62.
43. Weider D. Yu, Dhanya Aravind, Passarawarin Supthaweesuk, "Software Vulnerability Analysis for Web Services Software Systems," in *Proc. The 11<sup>th</sup> IEEE International Symposium on Computers and Communications*, June 26-29, 2006, Cagliari, Sardinia, Italy, pp. 740-748.
44. Weider D. Yu, Pradeep Ray, Tiberiu Motoc "A RFID Technology Based Wireless Mobile Multimedia System in Healthcare\*," in *Proc. The 8<sup>th</sup> IEEE International Conference on e-Health Networking, Applications and Services*, August 17-19, 2006, New Delhi, India, pp. 1-12 (\* The paper received the **Best Paper Award (Researcher)** of the conference).
45. Weider D. Yu, Soumya R. Jonnalagadda, "Semantic Web and Mining in Healthcare," in *Proc. The 11<sup>th</sup> IEEE International Conference on e-Health Networking, Applications and Services (HEALTHCOM 2006)*, August 17-19, 2006, New Delhi, India, pp. 198-201.
46. Weider D. Yu, Sharanya Doddapaneni, Savitha Murthy, "A Privacy Assessment Approach for Service Oriented Architecture Applications," in *Proc. The IEEE International Symposium on Service Oriented System Engineering (SOSE 2006)*, October 25-27, 2006, Shanghai, China, pp. 67-75.
47. Weider D. Yu, Mark A. Chekhanovskiy "An Electronic Health Record Content Protection System Using SmartCard and PMR<sup>TM</sup>" in *Proc. The 9<sup>th</sup> IEEE International Conference on e-Health Networking, Applications and Services (HEALTHCOM 2007)*, June 19-22, 2007, Taipei, Taiwan, pp. 11-18.
48. Weider D. Yu, Vijayalakshmi Jothiram "Security in Wireless Mobile Technology for Healthcare Systems," in *Proc. The 9<sup>th</sup> IEEE International Conference on e-Health Networking, Applications and Services*, June 19-22, 2007, Taipei, Taiwan, pp. 308-311.
49. Weider D. Yu, Savitha Murthy, "PPMLP: A Special Modeling Language Processor for

Privacy Policies," in *Proc. The 11<sup>th</sup> IEEE International Symposium on Computers and Communications (ISCC 2007)*

60. Weider D. Yu, Margaret Chan, "A Service Engineering Approach to A Mobile Parking Guidance System in u-Healthcare," in



2012, Beijing, China, pp.321-324.

71. Weider D. Yu, Alla Panova, "An Architectural Design Framework for an Electronic Health Record System with Hospice Application," in *Proc. The 2012 IEEE International Conference on e-Health, Networking, Applications, and Services (HEALTHCOM 2012)*, October 10-13, 2012, Beijing, China, pp. 367-370.
72. Weider D. Yu, Kyle Le, "Towards a Secure Software Development Lifecycle with SQUARE+R," in *Proc. The Thirty-Sixth IEEE International Computer Software & Applications Conference (COMPSAC 2012)*, July 16-20, 2012, Izmir, Turkey, Vol. 2, pp. 565-570.
73. Weider D. Yu, Jason Hanson, "A Smartphone Design Approach to User Communication Interface for Administering Storage System Network," in *Proc. The 2012 IEEE International*

4. 2005 **Microsoft International Windows Embedded Systems Student Challenge** – “Going Beyond the Boundaries,” **Finalist**  
“iFree” Team - San Jose State University  
Team Mentor/Advisor
5. 2000 “**Outstanding Asian American in Lucent Technologies**” – honored in the 2000 National Lucent 4A (Asian American Association for Advancement) Conference Held in Parsippany, New Jersey, August 9-11 2000.
6. 1998 Lucent Technologies Switching and Access Systems, **Employee Excellence and Quality Improvement Award**, October 2, 1998.  
5ESS Switch Software Interval Measurement and Reduction
7. 1995 **IEEE Communications Society - 1995 Chapter of the Year Award**, Chair of the IEEE Communications Society - Chicago Chapter (1994 - present).  
Excellence in Chicago Chapter Operation and Its Programs  
Chair of the IEEE Communications Society – Chicago Chapter
8. 1994 AT&T Network Systems Quality **Team Excellence Award**  
Coding Fault Prevention Team Recognized at AT&T Network Systems  
Excellence in Achieving Results Through Cost Effective Solutions  
Team Leader
9. 1993 AT&T Switching Systems Business Unit Quality **Team Excellence Award**  
Selected Team To Represent AT&T Switching Systems  
Excellent Results in Coding Fault Prevention  
Team Leader
10. 1993 AT&T Switching Systems U.S. Customer Business Unit **Employee Excellence Award**  
The No. 1 Team Selected To Represent U.S. Customer Business Unit  
Excellent Results in Coding Fault Prevention  
Team Leader
11. 1992 AT&T Switching Systems U.S. Customer Business Unit **Employee Excellence Award**  
Requirement Traceability and RADIX Tool Team  
Excellent Achievements in Methodology and Tool Development  
Team Leader
12. 1994 AT&T Switching Systems International Customer Business Unit **Employee Excellence Award**  
ISO 9000-3 Certification Achievement for ISCBU
13. 1990 **AT&T Bell Laboratories Distinguished Member of Technical Staff Award**
14. 1987-2001 Various Individual Performance and Department Awards of Excellence
15. 1999 Department JR1A0D Award  
Critical Contribution to Successful Implementation of the Policy Deployment Project on Throughput

**RECENT PROFESSIONAL ACTIVITIES:**

**Technical Program Committee**, *The 2013 IEEE International Conference on Connected Vehicles*, IEEE Communications Society, Las Vegas, Nevada, December 2-6, 2013.

**Technical Program Committee**, *The 2013 37<sup>th</sup> IEEE International Computer Software and Applications Conference (COMPSAC 2013)*, IEEE Computers Society, Kyoto, Japan, July 22-26, 2013.

**Technical Program Committee and Segment Chair**, *The 2013 IEEE International Workshop on Communications Quality, Reliability, and Security (CQR 2013)*, IEEE Communications Society,

- Reviewed paper submissions

**Technical Program Committee**, *The IEEE 2010 15<sup>th</sup> International Symposium on Computers and Communications (ISCC 2010)*, IEEE Computers and Communications Societies, Riccione, Italy, June 22-25, 2010.

**Technical Program Committee**, *The 2009 33<sup>rd</sup> IEEE International Computer Software and Applications Conference (COMPSAC 2009)*, IEEE Computers Society, Seattle, USA, July 20-24, 2009.

**Region Coordinator**, *Asian-Pacific Ubiquitous Healthcare Technology Research Center (US Region)*, San Jose, CA, USA, 2008.

**Speaker**, on "An Algorithmic Approach to Authorization Rules Conflict Resolution in Software Security", *The 2008 NSF TRUST (Team for Research in Ubiquitous Secure Technology) Autumn Conference*, hosted by TRUST partner institution Vanderbilt University, Nashville, Tennessee, USA, November 11-12, 2008. (TRUST is a NSF sponsored security research team led by the University of California, Berkeley, with partner institutions Carnegie University, Cornell University, Mills College, San Jose State University, Smith College, Stanford University, and Vanderbilt University.)

**Technical Program Committee**, *The 2009 IEEE International Workshop on Communications Quality, Reliability, and Security (CQR 2009)*, IEEE Communications Society, Naples, Florida, USA, May 12-14, 2009.

**Technical Program Committee and Session Chair**, *The 2008 32<sup>nd</sup> IEEE International Computer Software and Applications Conference (COMPSAC 2008)*, IEEE Computers Society, Turku, Finland, July 28 – August 1 2008.

**Technical Program Committee**, *The 13<sup>th</sup> IEEE International Symposium on Computers and Communications (ISCC 2008)*, IEEE Computers and Communications Societies, Marrakech, Morocco, July 6-9 2008.

**Conference International Scientific Committee**, *The 10<sup>th</sup> IEEE International Conference on e-Health Networking, Applications and Services (HEALTHCOM 2008)*, July 7-9, 2008, Biopolis, Singapore.

**Program Committee Co-Chair**, *The Third IEEE International Workshop on Mobile Commerce and Services (WMCS 2008) in conjunction with the Third IEEE International Conference on Grid and Pervasive Computing (GPC)*, Kuming, China, May 25-28, 2008.

**Technical Program Committee**, *The 2008 IEEE International Workshop on Communications Quality, Reliability, and Security (CQR 2008)*, IEEE Communications Society, Carefree, Arizona, USA, April 29 – May 1 2008.

**Speaker**, on "ARSL: A Language for Authorization Rule Specification in Software Security", *The 2007 NSF TRUST (Team for Research in Ubiquitous Secure Technology) Autumn Conference*, hosted by TRUST partner institution Cornell University, Ithaca, New York, USA, October 10-11, 2007. (TRUST is a NSF sponsored security research team led by the University of California, Berkeley with partner institutions Carnegie University, Cornell University, Mills College, San Jose State University, Smith College, Stanford University, and Vanderbilt University.)

**Technical Program Committee**, *The International Workshop on Modeling, Design and Analysis for Service-oriented Architecture (MDA4SOA 2007)*, IEEE Computers Society, Salt Lake City, Utah, USA, July 13, 2007.

**Technical Program Committee and Session Chair**, *The 12<sup>th</sup> IEEE International Symposium on Computers and Communications (ISCC 2007)*, IEEE Computers and Communications Societies, Aveiro, Portugal, July 1-4 2007.

**Technical Program Committee and Session Chair**, *The 9<sup>th</sup> IEEE International Conference on e-Health Networking, Application and Services (HEALTHCOM 2007)*, IEEE Communications Society, Taipei, Taiwan, June 19-22 2007.

**Technical Paper Session Chairs**, *The 2004 International Symposium on Performance Evaluation of Computer and Telecommunication Systems(SPECTS 2004)*, (Session: Web Server Analysis), The Society for Modeling and Simulation International, San Jose, California, USA, July 25-29, 2004.

**Technical Program Committee**, *The 2004 IEEE International Consumer Communications and Networking Conference (CCNC 2004)*, IEEE Communications Society, Las Vegas, Nevada, USA, January 2004.

**Technical Program Committee**, *The 2004 IEEE International Global Communication Conference*

**Organizer**, *IEEE Technical Seminar*, AT&T Bell Laboratories, Naperville, IL, May 1995.

**Invited Speaker**, *IEEE Fox Valley Subsection Technical Seminar*, Lisle, IL, January 1995.

**Organizer**, *IEEE Technical Presentation Seminar*, Lisle, IL, November 1994.

**Program Committee**, *IEEE Communication Society 1994 Wireless/PCS Symposium*, University of Illinois at Chicago, 1994.

**Speaker**, *IEEE Communication Society 1993 International Quality Assurance Management Workshop*, May 1993.

**Technical Program Co-Chairperson**, *The 9th International Conference on Advanced Science and Technology*, Motorola, Schaumburg, IL, March 1993.

**Group Chair**, *1992 Modern Engineering and Technology Seminar*, Taiwan, 1992.

**Program Committee**, *1992 International Computer Symposium*, Taiwan, 1992.

**Session Chairperson & Speaker**, *1991 IEEE Computer Software Application Conference (COMPSAC)*, Tokyo, Japan, 1991.

**Conference Panel Organizer**, *1991 IEEE Computer Society COMPSAC Conference*, Tokyo, Japan, 1991.

**Committee Member**, *IEEE Computer Society Software Engineering Standards Committee*.

**Committee Member**, *IEEE Communications Society Quality Assurance Committee*.

**Committee Member**, *IEEE Software Productivity Standards Subcommittee*.

**Corporate Technical Expert** (listed in the corporation expert data base), AT&T Bell Laboratories.

**Invited Speaker**, *Software Productivity and Quality Executive Cabinet Committee*, AT&T Bell Laboratories.

**Invited Speaker**, *Software Practices and Technology Council*, AT&T Bell Laboratories.

**Speaker**, *1990 Modern Engineering and Technology Seminar*, Taiwan.

**Invited Speaker**, Fujitsu Ltd., Japan, 1990.

**Speaker**, *IEEE Communication Society 1990 International Quality Assurance Management Workshop*, May 1990.

**Speaker**, *Information Technology Session, 1990 Chinese Academic and Professional Convention of North America (CAAPCON)*

**Speaker**, *National Communication Forum (NCF '88)*, Chicago, 1988.

**University Lecturer**, *AT&T Technical Exchange Program*

**Reviewer**, *IEEE Software Engineering Standards Committee*

**Reviewer**, *IEEE Parallel & Distributed Technology*

**Reviewer**, *Computer Magazine, IEEE Computer Society*

**Book Reviewer**, *IEEE Computer Society Press*

**Committee**, *ISO/IEC JTC 1/SC7 Software Engineering Technical Advisory Group (TAG)*

## **PROFESSIONAL SOCIETIES:**

### **IEEE Senior Member**

Vice Chair – Publications, IEEE Communications Society Quality Assurance and Reliability Committee.

Steering Committee Member, IEEE Communications Society e-Health Technical Committee.

Past Chair, IEEE Communications Society - Chicago Chapter.

Committee Member, IEEE Computer Society Software Engineering Standards Committee.

Senior Member, IEEE Computers Society and IEEE Communications Society.

Past Board Member, North America Region, IEEE Communications Society.

ISO/IEC JTC 1/SC7 Software Engineering Technical Advisory Group (TAG) – Former Lucent Technologies delegate (alternate).

### **ACM Member**

Full Member

## **ACADEMIC GRANTS AWARDED:**

### **National Science Foundation(NSF): 2008-2009 BPC-A Grant**

Co-Principal Investigator. Award: \$150K, December 2008.

Topic “Expanding Paths to Computing”.

### **SJSU/COE: 2007 Faculty Development Grant**

Principal Investigator. Award: \$10K, April 2007.

Program Categories: Teaching and Research Excellence, Leading-Edge Engineering Programs.

Topic “Security and Privacy in Wireless Mobile Technology for u-Health Systems”.

### **SJSU: 2006 Faculty Initiative to Support Student Success Fund**

Principal Investigator. Award: 0.20 release time, November 2006.

### **SJSU/CMPE: 2006 Professional Development Grant**

Principal Investigator. Award: \$2.5K, February 2006.

### **INTEL: 2005 California Education Grant**

Senior Personnel. Award: \$44K, February 2005.

Topic: “Wireless and Internet Technology in Learning Environment”.



**HP: 2004 Applied Mobile Technology Solutions in Learning Environments Grant**

Co-Principal Investigator. Award: \$112K, April 2004.

Topic: "Community Based Mobile Technology and Learning Innovations".

**SJSU/CMPE: 2004 Professional Development Grant**

Principal Investigator. Award: \$2.5K, February 2004.

**HP: 2003 Applied Mobile Technology Solutions in Learning Environments Grant**

Co-Principal Investigator. Award: \$250K, March 2003.

Topic: "Problem-Based Learning through Mobile Technology".

**INTEL: 2003 Science and Technology Education Grant**

Co-Principal Investigator. Award: \$50K, February 2003.

Topic: "Wireless and Internet Technology in Learning Environment".

**CSU: 2003-2004 Research Grant**

Principal Investigator. Award: \$5K, May 2003.

Topic: "Distributed Software Engineering Technology for Problem-Based Learning".

**INDUSTRY SPECIAL SUPPORT:**

**MICIRY SPECI2ECJUUUUfJ**