Nathan W. Twyman
Assistant Professor of Business & Information Technology
Missouri University of Science & Technology (formerly University of Missouri-Rolla), USA
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Short Bio

Nathan W. Twyman is an Assistant Professor of Business & Information Technology at Missouri University of Science & Technology. He received his Ph.D. in Management Information Systems from the University of Arizona. Nathan's research interests include HCI, group systems, and auditing, security, and forensic investigation systems. He has served as a PI for research that has generated hundreds of thousands in external funding, and has served as a key contributor to several larger sponsored projects. His research has been published or is forthcoming in *Management Information Systems Quarterly*, *Journal of Management Information Systems, Journal of the Association for Information Systems, Information & Management*, *AIS Transactions on Human-Computer Interaction,* and in popular media outlets. He has researched, developed, published, and patented a next-generation human risk assessment system design.

Education

Ph.D., Management Information Systems (2012)
University of Arizona, Tucson, Arizona.

Dissertation:	"Automated Human Screening for Detecting Concealed Knowledge."
Major Advisors:	Dr. Jay F. Nunamaker, Jr., Regents Professor and Soldwedel Chair, Professor of MIS, CS, and Communication
	Dr. Judee K. Burgoon, Professor of Communication, Family Studies and Human Development and CMI Director of Research
Minor:	Psychology
Minor Advisor:	Dr. Mary Peterson, Professor of Psychology and Director of the Cognitive Science Program

M.S. & B.S., Information Systems Management (2007)
Brigham Young University, Provo, Utah.
Program Emphasis: Information Systems Research

Journal Articles

Jay F. Nunamaker Jr., Nathan W. Twyman, Justin Giboney, and Robert O. Briggs. (forthcoming). "Creating High-value Real-world Impact through Systematic Programs of Research." *Management Information Systems Quarterly*.

Matthew Jensen, Adame Bradley, Norah Dunbar, Cameron Piercy, Claude Miller, Scott Wilson, Javier Elizondo Cecena, Nathan W. Twyman, and Joseph Valacich. (2016). "Exploring Failure and Engagement in a Complex Digital Training Game: A Multi-method Examination." *AIS Transactions on Human-Computer Interaction*. (8):1. pp. 1-20. http://aisel.aisnet.org/thci/vol8/iss1/2.

Nathan W. Twyman, Jeffery Gainer Proudfoot, Ryan M. Schuetzler, Aaron C. Elkins, and Douglas C. Derrick. (2015). "Robustness of Multiple Indicators in Automated Screening Systems for Deception Detection." *Journal of Management Information Systems*. (32):4. pp. 215-245.

Nathan W. Twyman, Paul Benjamin Lowry, Judee K. Burgoon, and Jay F. Nunamaker. (2014). "Autonomous Scientifically Controlled Screening Systems for Detecting Information Purposely Concealed by Individuals." *Journal of Management Information Systems*. (31):3. pp. 106-137.

Paul Benjamin Lowry, Jeffery L. Jenkins, Nathan W. Twyman, and Matthew Pickard. (2014). "Proposing the Affect-Trust Infusion Model (ATIM) to Explain and Predict the Influence of High and Low Affect Infusion on Web-Vendor Trust." *Information & Management*. (51):5. pp. 579-594.

Nathan W. Twyman, Aaron C. Elkins, Judee K. Burgoon, and Jay F. Nunamaker. (2014). "A Rigidity Detection System for Automated Credibility Assessment." *Journal of Management Information Systems*. (31):1. pp.173-202.

Paul Benjamin Lowry, James Gaskin, Nathan W. Twyman, Bryan Hammer and Tom L. Roberts. (2013). "Taking 'Fun and Games' Seriously: Proposing the Hedonic-Motivation System Adoption Model (HMSAM)." *Journal of the Association for Information Systems*. (14):11. http://aisel.aisnet.org/jais/vol14/iss11/2.

Conference Papers

Raheel Hassan, Nathan W. Twyman, Fiona Fui-Hoon Nah, and Keng Siau (2016). "Patient Engagement in the Medical Facility Waiting Room Using Gamified Healthcare Information Delivery," in F. Nah, & C. Tan (editors), "HCI in Business, Government and Organizations: Information Systems (Part II)," *Lecture Notes in Computer Science*, Volume 22, Springer-Verlag.

Aaron C. Elkins, Jeffrey G. Proudfoot, and Nathan W. Twyman (2016). "Embodied Conversational Agent-based Deception Detection." Paper presented at the SAI / IEEE Intelligent Systems Conference, Sep 21-22, 2016. London, UK.

David W. Wilson, Jeff Jenkins, Nathan W. Twyman, Matthew Jensen, Joe Valacich, Norah Dunbar, Scott Wilson, Claude Miller, Bradly Adame, Yu-Hao Lee, Judee Burgoon, and Jay F. Nunamaker (2016). "Serious Games: An Evaluation Framework and Case Study," in Proceedings of the *49th Hawaii International Conference on System Sciences (HICSS)*, Koloa, Hawaii, Jan 5-8, pp. 638-647.

Steven J. Pentland, Nathan W. Twyman, and Judee K. Burgoon (2016). "In Search of Reliable Facial Cues for Deception Detection," in Proceedings of the *HICSS-49 Credibility Assessment and Screening Technologies Symposium*, January 2016.

Judee K. Burgoon, J. Pete Blair, Lauren M. Hamel, Tiantian Qin, and Nathan W. Twyman (2016). "Effects of Motivation and Modality on Deceptive Messages and their Detection," in Proceedings of the *HICSS-49 Credibility Assessment and Screening Technologies Symposium*, January 2016.

Steven J. Pentland, Judee K. Burgoon, and Nathan W. Twyman (2015). "Face and Head Movement Analysis Using Automated Feature Extraction Software." Paper presented at the *48th Annual Hawaii International Conference on System Sciences*, Kauai, Hawaii, January 5-8.

Eric Case and Nathan W. Twyman (2015). "Embodied Conversational Agents: Social or Nonsocial?" *HICSS-48 Proceedings of the Rapid Screening Technologies, Deception Detection, and Credibility Assessment Symposium*, Kauai, Hawaii, January 5-8.

Mark Grimes, Joseph Valacich, Jeffery Jenkins, Nathan W. Twyman, Judee K. Burgoon, and Jim Marquardson (2015). "Lessons Learned from Successive Deception Experiments." *Proceedings of the HICSS-48 Symposium on Credibility Assessment and Information Quality in Government and Business*. Kauai, Hawaii, January 5-8.

Nathan W. Twyman, Ryan Schuetzler, Jeffrey G. Proudfoot, and Aaron C. Elkins (2013). "A Systems Approach to Countermeasures in Credibility Assessment Interviews." Proceedings of the *International Conference on Information Systems,* Milan, Italy, December 15-18.

Jay F. Nunamaker, Jr., Nathan W. Twyman, and Justin Scott Giboney (2013). "Breaking out of the Design Science Box: High-Value Impact through Multidisciplinary Design Science Programs of Research." *Proceedings of the 2013 Americas Conference on Information Systems*. Chicago, Illinois, August 15-17.

Nathan W. Twyman, Judee K. Burgoon, Aaron C. Elkins, and Jeffrey G. Proudfoot (2013). "Alternative Cues in Concealed Information Testing." *HICSS-46 Proceedings of the Rapid Screening Technologies, Deception Detection, and Credibility Assessment Symposium*, Maui, Hawaii, Jan 7-8.

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Jeffrey G. Proudfoot, <u>Nathan W. Twyman</u>, and Judee K. Burgoon (2013). "Eye Tracking and the CIT: Utilizing Oculometric Cues to Identify Familiarity with Wanted Persons." *HICSS-46 Proceedings of the Rapid Screening Technologies, Deception Detection, and Credibility Assessment Symposium*, Maui, Hawaii, Jan 7-8.

Jeffrey G. Proudfoot, <u>Nathan W. Twyman</u>, and Judee K. Burgoon (2012). "A Comparison of Invasive and Noninvasive Sensors in the Concealed Information Test." Proceedings of the *Workshop on Innovation in Border Control (WIBC)* at the *European Intelligence and Security Informatics Conference (EISIC)*, Odense, Denmark, August 22-24.

Jeffrey G. Proudfoot, <u>Nathan W. Twyman</u>, and Judee K. Burgoon (2012). "Familiarity Recognition in Automated Screening Environments: Utilizing Eye-Tracking Technology as an Intelligence-Gathering Tool." *HICSS-45 Symposium on Credibility Assessment and Information Quality in Government and Business*, Maui, Hawaii, USA, Jan 4-7.

Paul Benjamin Lowry, Jeffrey L. Jenkins, <u>Nathan W. Twyman</u>, and Matthew D. Pickard (2011). "Proposing the Affect-Trust Infusion Model (ATIM) to Explain and Predict the Influence of High- and Low-Affect Infusion on Web Vendor Trust." *ICIS 2011 JAIS Sponsored Theory Development Workshop*. Shanghai, China, December 3.

<u>Nathan W. Twyman</u>, Aaron Elkins, and Judee K. Burgoon (2011). "A Rigidity Detection System for the Guilty Knowledge Test." HICSS-44 Symposium on Credibility Assessment and Information Quality in Government and Business, *44th Annual Hawaii International Conference on System Sciences (HICSS)*, Koloa, Hawaii, USA, Jan 4-7.

<u>Nathan W. Twyman</u>, Judee K. Burgoon, and Jay F. Nunamaker (2011). "Non-invasive Screening for Concealed Information." HICSS-44 Symposium on Credibility Assessment and Information Quality in Government and Business, *44th Annual Hawaii International Conference on System Sciences (HICSS)*, Koloa, Hawaii, USA, Jan 4-7.

<u>Nathan W. Twyman</u> (2011). "Non-Invasive Screening to Discover Concealed Knowledge: A System and Protocol for Automated Human Security Screening." *International Conference on Information Systems (ICIS) 2011 Doctoral Consortium*. Shanghai, China, November 30 – December 3.

<u>Nathan W. Twyman</u> (2011). "A Framework for Non-Invasive Screening for Concealed Knowledge." *Americas Conference on Information Systems (AMCIS) 2011 Doctoral Consortium*. Detroit, Michigan, USA, August 3-4.

<u>Nathan W. Twyman</u>, Jeffrey L. Jenkins, Katherine Carl, and Jay F. Nunamaker, Jr. (2011). "Knowledge Sourcing and Knowledge Consumption in Computer-Mediated Complex Decision Making." *44th Annual Hawaii International Conference on System Sciences (HICSS)*, Koloa, Hawaii, Jan 4-7.

<u>Nathan W. Twyman</u>, Kevin Moffitt, Judee K. Burgoon, and Frank Marchak (2010). "Using Eye Tracking Technology as a Concealed Information Test." HICSS-43 Symposium on Credibility Assessment and Information Quality in Government and Business, *43rd Annual Hawaii International Conference on System Sciences (HICSS)* Koloa, Hawaii, USA, January 5-8.

Judee K. Burgoon, Matthew Jensen, <u>Nathan W. Twyman</u>, Thomas O. Meservy, Dmitris N. Metaxas, Nicholas Michael, Koren Elder, and Jay F. Nunamaker, Jr. (2010). "Automated Kinesic Analysis for Deception Detection" HICSS-43 Symposium on Credibility Assessment and Information Quality in Government and Business, *43rd Annual Hawaii International Conference on System Sciences (HICSS)* Koloa, Hawaii, USA, January 5-8.

Paul Benjamin Lowry, <u>Nathan W. Twyman</u>, James Gaskin, Bryan Hammer, Aaron Bailey, and Tom L. Roberts (2007). "Proposing the Interactivity-Stimulus-Attention Model (ISAM) to Explain and Predict Enjoyment, Immersion, and Adoption of Purely Hedonic Systems," *Special Interest Group on Human-Computer Interaction (SIG-HCI) 2007 Pre-ICIS Workshop* (best-paper nomination), Montréal, Canada, December 8.

Paul Benjamin Lowry, Jeffrey L. Jenkins, <u>Nathan W. Twyman</u>, Bryan Hammer, James Gaskin, and Martin Hassell (2008). "Proposing the Hedonic Affect Model (HAM) to Explain how Stimuli and Performance Expectations Predict Affect in Individual and Group Hedonic Systems Use," *Journal of the Association for Information Systems (JAIS) Pre-ICIS Theory Development Workshop*.

Other Publications

Steven J. Pentland, Nathan W. Twyman, and Judee K. Burgoon (2014). "Automated Analysis of Guilt and Deception from Facial Affect in a Concealed Information Test." Poster presented at the15th Annual Conference of the Society for Personality and Social Psychology; 2014 February 13-15; Austin, TX.

Jay F. Nunamaker, Elyse Golob, Douglas C. Derrick, Aaron C. Elkins, and <u>Nathan W. Twyman</u> (2013). *Field Tests of an AVATAR Interviewing System for Trusted Traveler Applicants*. Technical report published by the Center for Border Security and Immigration. http://www.borders.arizona.edu/cms/sites/default/files/FieldTestsofanAVATARInterviewingSystemforTrustedTravelerApplicants.pdf.

<u>Nathan W. Twyman,</u> Matthew D. Pickard, and Mary B. Burns (2012). "Credibility Screening Systems for Auditing Interviews." Proceedings of the *Brigham Young University 9th Annual Accounting Research Symposium*, Provo, Utah, Sep 27-29.

<u>Nathan W. Twyman</u>, Matthew D. Pickard, and Mary B. Burns (2012). "Proposing Automated Human Credibility Screening Systems to Augment Forensic Interviews and Fraud Auditing." Proceedings of the *Strategic and Emerging Technologies Workshop* at the *American Accounting Association Annual Meeting*, Washington D.C., August 4.

Jay F. Nunamaker Jr., Judee K. Burgoon, <u>Nathan W. Twyman</u>, Jeffrey G. Proudfoot, Ryan Schuetzler, and Justin G. Giboney (2012). "Establishing a Foundation for Automated Human Credibility Screening." Proceedings of the *Developing Technologies and Tools for Border Security Applications* workshop at the *IEEE Conference on Intelligence and Security Informatics (ISI)*, Washington, D. C., June 11.

<u>Nathan W. Twyman</u> and Douglas C. Derrick. "Non-invasive Screening for Concealed Information." Proceedings of the *Fifth Annual University Network Summit*. Washington, D.C., March 2011.

Presentations

Jay F. Nunamaker, Nathan W. Twyman, and Justin Giboney. "Breaking out of the Design Science Box: High-Value Impact through Multidisciplinary Design Science Programs of Research." Presented at the *Americas Conference on Information Systems*, Chicago, Illinois, August 2013.

Nathan W. Twyman, Ryan Schuetzler, Jeffrey G. Proudfoot, Aaron C. Elkins, and Judee K. Burgoon. "Resilience of Deception Detection Sensors." Presented at the semi-annual meeting for the Center for Identification Technology Research (CITeR), Virginia, May 2013.

Nathan W. Twyman, Matthew D. Pickard, and Mary B. Burns. "Credibility Screening Systems for Auditing Interviews." Presented at the *Brigham Young University 9th Annual Accounting Research Symposium*, Provo, Utah, September 2012.

Nathan W. Twyman, Matthew D. Pickard, and Mary B. Burns. "Proposing Automated Human Credibility Screening Systems to Augment Forensic Interviews and Fraud Auditing." *Strategic and Emerging Technologies Workshop* at the *American Accounting Association Annual Meeting*, Washington D.C., August 2012.

Aaron C. Elkins, Douglas C. Derrick, Nathan W. Twyman, and Jay F. Nunamaker. "Establishing a Foundation for Automated Human Security Screening." *Developing Technologies and Tools for Border Security Applications* workshop at the *IEEE Conference on Intelligence and Security Informatics (ISI)*, Washington D. C., June 2012.

Nathan W. Twyman, Aaron C. Elkins, and Judee K. Burgoon. "Automated Rigidity Analysis for Automated Screening." Presented at the semi-annual meeting for the Center for Identification Technology Research (CITeR), Suffolk, Virginia, May 2012.

Nathan W. Twyman, Judee K. Burgoon, and Jay F. Nunamaker Jr. "Non-Invasive Screening to Discover Concealed Knowledge." Presented at the ICIS 2011 Doctoral Consortium, Shanghai, China, Nov 30 – Dec 3, 2011.

Nathan W. Twyman and Jay F. Nunamaker Jr. "Non-invasive Screening for Concealed Information." Presented at the *AMCIS 2011* Doctoral Consortium, Oakland, Michigan, USA, Aug 3-4, 2011.

Nathan W. Twyman, Aaron Elkins, and Judee K. Burgoon. "Automated Rigidity Detection for Automated Screening." Presented at the semi-annual meeting for the Center for Identification Technology Research (CITeR), Tucson, Arizona, May 2011.

Nathan W. Twyman and Douglas C. Derrick. "Non-invasive Screening for Concealed Information." Presented at DHS Science Conference – Fifth Annual University Network Summit. Washington, D.C., March 2011.

Nathan W. Twyman, Aaron Elkins, and Judee K. Burgoon. "A Rigidity Detection System for the Guilty Knowledge Test." Presented at the *HICSS-44 Symposium on Credibility Assessment and Information Quality in Government and Business*, Koloa, Hawaii, January 2011.

Nathan W. Twyman, Judee K. Burgoon, and Jay F. Nunamaker, Jr. "Non-invasive Screening for Concealed Information." Presented at the *HICSS-44 Symposium on Credibility Assessment and Information Quality in Government and Business*. Koloa, Hawaii, January 2011.

Nathan W. Twyman, Jeffery L. Jenkins, Katherine Carl, and Jay F. Nunamaker, Jr. "Knowledge Sourcing and Knowledge Consumption in Computer-Mediated Complex Decision Making." Presented at *44th Annual Hawai'i International Conference on System Sciences (HICSS)*, Koloa, Hawaii, January 2011.

Nathan W. Twyman, Judee K. Burgoon, and Jay F. Nunamaker, Jr. "It's The Network: Knowledge Sharing Systems for Credibility Assessment." Presented at the semi-annual meeting for the Center for Identification Technology Research (CITeR), Fall 2009, Tucson, Arizona.

Grants and Contracts (Principal Investigator)

Awards through the Center for Identification Technology Research:

Judee K. Burgoon, Steven Pentland, and <u>Nathan W. Twyman</u> (awarded November 2013). *Deception Detection using Computer Expression Recognition.*

Jeffrey G. Proudfoot, Judee K. Burgoon, Aaron C. Elkins, and <u>Nathan W. Twyman</u> ($40K awarded November 2013). *Covert Detection of Strategic and Nonstrategic Deception Cues with a Bogus Concealed Information Test.*

Judee K. Burgoon, Joseph Valacich, <u>Nathan W. Twyman</u>, Jeffrey G. Proudfoot, and Mark Grimes ($55K awarded December 2012). *Detecting Impostership through Soft Biometrics and Cognitive Metrics*.

Jeffrey G. Proudfoot, Judee K. Burgoon, <u>Nathan W. Twyman</u>, Aaron C. Elkins, and Jay F. Nunamaker ($52K awarded May 2012). *Testing the Use of Noninvasive Sensors to Conduct the Concealed Information Test*.

Nathan W. Twyman, Ryan Schuetzler, Jeffrey G. Proudfoot, Aaron C. Elkins, and Judee K. Burgoon ($45K awarded May 2012). *Resilience of Deception Detection Sensors.*

Ryan Schuetzler, Nathan W. Twyman, Jeffrey G. Proudfoot, and Jay F. Nunamaker ($40K awarded May 2011). *Evaluating the Robustness of Eye Tracking to Mental and Physical Countermeasures.*

Nathan W. Twyman, Aaron C. Elkins, and Judee K. Burgoon ($40K awarded May 2011). *Automated Rigidity Detection for Automated Screening.*

Nathan W. Twyman, Douglas C. Derrick, Jay F. Nunamaker, & Jeffrey Proudfoot ($50K awarded October 2010). *Establishing Deceptive-Behavior Baselines for Eye-Tracking Systems.*

Other Funded Research Activities (Contributor)

Experimental evaluation of the effects of multitasking on deception detection (funding provided by SSHRC), HEC Montreal, 2014.

Trusted Traveler program field implementation for an avatar screening program (funding provided by the Department of Homeland Security National Center of Excellence in Border Security and Immigration (BORDERS)), University of Arizona, 2011-2013.

European Union Frontex Workshop and Innovation Showcase (hooligan detection using automated screening kiosks; funding provided by Frontex), Apeldoorn, Netherlands, September 2012.

Credibility Assessment and Intelligence Training in a Serious Game (funding provided by the Intelligence Advanced Research Projects Activity (IARPA)), Center for the Management of Information, University of Arizona, 2011-Present. $10.7M

Multimodal Fusion for Stand-off Identity and Intent for 10-25 Meters (Consultant collaborating with Clarkson University, funded by Center for Identification Technology Research (CITeR)), 2011-2012.

Lead and Manage 16 Research Institutions, Department of Homeland Security Center of Excellence for Border Security and Immigration, BORDERS (funding provided by the Department of Homeland Security (DHS)), 2009-Present. $15M

Development of Interviewing and Deception Detection Techniques for Rapid Screening and Credibility Assessment (funding provided by the Department of Homeland Security National Center of Excellence in Border Security and Immigration (BORDERS)), University of Arizona, 2008-Present.

Noninvasive, Multimodal Assessment of Credibility during Interviews (funded by the National Center for Credibility Assessment NCCA)), Collect and analyze deceptive behavior data after participants took part in a mock crime. Center for the Management of Information, University of Arizona, 2008-Present. $1.2M

Rapid Noncontact Credibility Assessment (funding provided by Counterintelligence Field Activity (CIFA)), Examine the differences between cultural non-verbal gestures when people deceive. Center for the Management of Information, University of Arizona, 2008-Present

Awards and Honors

Competitively selected to be the ICIS 2011 Doctoral Consortium nominee representing the prestigious University of Arizona MIS program.

Competitively selected for participation in the ICIS 2011 Doctoral Consortium, Shanghai, China, November 30 – December 3, 2011.

Competitively selected for participation in the AMCIS 2011 Doctoral Consortium, Detroit, Michigan, USA, Aug 3-4, 2011.

Competitively selected to be a panelist and presenter at the DHS Fifth Annual University Network Summit, Catastrophes & Complex Systems: Transportation. Washington, D.C., March 2011.

Best paper nomination for "Proposing the Interactivity-Stimulus-Attention Model (ISAM) to Explain and Predict Enjoyment, Immersion, and Adoption of Purely Hedonic Systems," *Special Interest Group on Human-Computer Interaction (SIG-HCI) 2007 Pre-ICIS Workshop*, Montréal, Canada, December 8, 2007.

Professional Service

2016 HCII conference Program Committee member.

Graduate Thesis committee member for Coi Zuo, Prashanth Kumar Lakkapragada, and Sri Chaitanya Sanaboina MS&T (2015-2016).

Faculty Search Committee MS&T (2015/2016).

AMCIS 2015 Crowdsourcing Minitrack Co-Chair.

Faculty Qualification Committee MS&T (2014).

CMI Regular grant and report writing including sole author, contributing author, and manager of grant-, contract-, and report-writing teams (2008-2014).

Facilitator and contributor for stakeholder engagement activities for the Center for the Management of Information, BORDERS Center for Security and Immigration, and Center for Identification Technology Research (2012-2014).

Group support systems (GSS) facilitator--clients have ranged from academic (e.g., university deans) to private (e.g., local businesses).

Course co-developer for online University of Arizona MBA course: *Human Deception in Business and Society*. (2013-2014).

Reviewer for MISQ, JMIS, EJIS, JSIS, I&M, CAIS, THCI, GDN, IJHCI, Transactions on Affective Computing (TAC) and many reviews for major MIS conferences, including ICIS, AMCIS, HICSS, PACIS.

Designed and built the automated screening kiosk (ASK), a modular kiosk and screening system platform for rapid security screening research. The ASK is an instantiation of my published and patented Automated Scientifically Controlled Screening Systems (ASCSS) concept. The modular design of the ASK provides flexibility in human-computer experimental designs (e.g. sitting vs. standing, customizable sensors and sensor placement, adjustable lighting). An implementation of this system is pictured in this section. Several large funded University of Arizona experiments have used and will continue to use this platform.

Developed a web-based collaborative credibility assessment platform for deception detection research at the University of Arizona.

Graduate thesis mentor for Irvin Hsu at the University of Arizona (2011-2012).

Workshop Review Coordinator for the Workshop on Innovation in Border Control (WIBC) 2012.

Teaching

Foundations of Internet Computing (IST 6336) at Missouri University of Science and Technology. Computer networking, websites and e-commerce.

Human and Organizational Factors in Information Assurance (IST 6001) at Missouri University of Science and Technology, Spring 2016. Investigating relationships between human and organizational factors and information security and assurance. Research project final deliverable.

Prototyping Human-Computer Interactions (IST 5886) at Missouri University of Science and Technology. Iterative project-based prototyping class emphasizing synergy among human, technology, and organizational factors. Fall 2015: (4.5 / 5).

Network Performance Design and Management (IST 3321) at Missouri University of Science and Technology. Advanced Data Networking and prep for CCNA. Spring 2015: (5/5).

Introduction to Telecommunications Networks (IST 3333) at Missouri University of Science and Technology, Introductory networking course. Fall 2014: (2.4 / 5); Fall 2015: (4.4/5).

Human Deception in Business and Society (OMBA/MIS 529E) at the University of Arizona, Fall 2013 through Fall 2015. Online MBA-oriented course on deception and deception detection systems. First offering. Overall student ratings: (4.4 / 5).

Database Management Systems (MIS 331) at the University of Arizona, Fall 2010. Introductory database class covering requirements analysis, entity-relationship diagrams, relational modeling, SQL, and implementation (using Oracle). Students gathered requirements, designed, and built a working database prototype for their final project. Overall student ratings: (4.4 / 5).

Using and Managing Information Systems (MIS 304) at the University of Arizona, Summer 2011. 2nd-level information systems course exploring topics covered in introductory information systems course more in-depth. Example topics included: information systems strategy, system development, project management, data mining and business intelligence, Security, and HCI. Students proposed IS solutions to real-world business problems for their final project. Overall student ratings: (4.1 / 5).

ERP training modules at BurrellesLuce Information Services, 2006-2008. Specialized training for operation of company-specific ERP. Positive feedback and results.

Professional & Community Volunteer Experience

Center for the Management of Information, University of Arizona
Research Specialist Senior (August 2014), Postdoctoral Research Scientist (2012-2014), and Research Associate (2008-2012), investigating topics in automated interviewing systems, credibility assessment systems, and collaboration systems. Wrote grant proposals and applications. Presented a considerable number of on-site research demonstrations. Facilitated large-group collaboration sessions. Assisted with systems troubleshooting and maintenance. (2008-2012).

Information Systems Department, Brigham Young University
Research Assistant, investigating influence of Affect Infusion on system adoption using the Expectation-Disconfirmation paradigm. Investigated potential of color choice on websites as an indicator of individual demographics (2007-2008).

BurrellesLuce Information Services

Order processing and quality assurance department creation, organization, and management, order processing and quality assurance process development, ERP implementation SME, database maintenance and administration, training course developer and administrator, and internal consultant (2005-2008); external consultant (2008-2012).

A/V engineering, installation, & maintenance

Custom design and installation of high-end home theater, custom automation, industrial-grade sound systems, security systems, electrical, networks, etc. Custom lighting and sound design and performance in educational and professional stage theater. Acted in team and project management capacities, both for technology companies such as [Sound Advice](#) and [BYU DAP](#) and as an independent contractor (1998-2001, 2003-2009).

The Church of Jesus Christ of Latter-day Saints

Volunteer ecclesiastical and community service appointments (1995-Present) including full-time missionary (2001-2003). I include this to give appropriate credit for development of teaching, group management, and similar profession-relevant skills.

Boy Scouts of America

Team Advisor (2003-2004, 2008-2010), Scoutmaster (2014-2016)