

Cyberlearning Workshop Participant Bios



Tarek Abdoun

Rensselaer Polytechnic Institute

Civil engineering Professor and Associate Dean for graduate studies and research at RPI. My research interest include earthquake engineering, multi-hazard, and educational research. Currently the PI a second NSF funded-education project "Mixed Reality and Mobile Gaming for 21st Century Education," The educational mixed reality game is a hybrid course module that includes actual lab testing, virtual field testing, theoretical system design, and virtual inspection of flood systems. Co-Pi on a recently completed NSF-funded educational project that integrate RPI State-of-the-Art experimental facilities into the undergraduate education curriculum at US universities, by using web-based technologies.



Huiping Cao

New Mexico State University

My research interests are in the area of data mining in general. My research focuses on designing new models and new algorithms to analyze and search non-relational data including time series (e.g., GPS data, power waveforms) and graph-structured data (e.g., social networks). In my research, I collaborate with researchers in other areas including engineering, animal and range science, environmental science, and astronomy. Besides teaching regular courses to college and graduate students, I am also interested in developing new modules and strategies to teach K-12, college, and graduate students. I am currently working with undergraduate students to create data mining modules to teach K-12 students the data mining concepts and algorithms through summer camps, which are sponsored by NSF and supported by our department. I also worked with students to teach data structure courses using Peer Lead Team Learning (PLTL) and Peer Learning Assistance (PLA) strategies



Alfredo Cruz

Polytechnic University of PR

Dr. Alfredo Cruz, holds two PhD degrees; one in Computer Engineering from the University / of Cincinnati in 1992, and one in Computer Information Systems from Nova Southeastern in / 2002. He brings important expertise and plentiful experience in computer security research and / education to the proposed project. He was assigned to a research project in HPC in the Army Research / Laboratory (ARL) Computational Sciences and Engineering Division, at White Sands, / New Mexico, during the summer of 2000. He is

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currently a participant in DoD and NRC grants; / and prior NSA, NSF-CISE, NSF-MRI, and NSF-REU projects. Dr. Cruz has been working with / graduate students in projects related to IA and Homeland Security. He has co-authored various / papers on Computer Security with students. Dr. Cruz is the Director and founder of the High Performance / Computing (HPC) facilities and the Center for Information Assurance for Research / and Education (CIARE) and is responsible for the CAE/IAE designation.



Derrek Dunn

University of Maryland Eastern Shore

Currently in the process of developing an on-line Master's degree in Cybersecurity. As part of the degree program, student develop and write a conference or journal paper that can be submitted to a conference or journal for publication. I am interested in partnering with entities that can help develop topics for the graduate students to address and possible implement in the long term.



Majed Dweik

Lincoln University

My research interest is design and development of sensors and nano-sensors. I am working on contaminant nano-sensor. I developed tools for hands-on- experiments for students to understand what nano-technology is. I work with K-12 students and teachers as well as undergraduate and graduate students.



Sherri Frizell

Prairie View A&M University

I am a Computer Scientist by training. My dissertation research focused on the design of web-based instruction. This was during the early years of cyberlearning. Since that time, I have continued to be involved in research projects on the use of technology in the classroom. I've also been heavily involved in Broadening Participation research. Recent efforts have focused on bringing innovation and entrepreneurship to the classroom.

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Kinnis Gosha

Morehouse College

Dr. Kinnis Gosha is an Assistant Professor in the Department of Computer Science at Morehouse College. There he directs the Culturally Relevant Computing Lab and serves the Advisor for the NSF-Funded STARS Leadership Corps and ACM Chapter. Gosha is the 2013 graduate of the Clemson University Human-Centered Computing doctoral program under the advisement of Dr. Juan E. Gilbert. Kinnis' research includes Human-Centered Computing, Ethnocomputing, Green Computing and Virtual Agents.



Kevin Harris

Lincoln University - MO

Hello my current area of interest is in the area of information security broadly. Specific areas include training as well as how levels of security will impact future adoption rates of technology. While there have been significant strides in decreasing the population of society that is part of the digital divide, this is an additional area of interest of mine and believe that there are current technologies in place that can positively address this issue.



Casper Hartevelde

Northeastern University

Dr. Casper Hartevelde is an Assistant Professor of Game Design at Northeastern University, and author of *Triadic Game Design* (Springer, 2011), a book about serious game design. He earned his PhD degree from Delft University of Technology in Systems Engineering, Policy Analysis & Management. His research focuses on using games to learn about decision-making, and educating people in making better decisions through games. He applies this especially in the context of resilience and sustainability, two areas where it is challenging and difficult to study and train in natural environments.

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**Katie Headrick Taylor**

University of Washington

I am a new assistant professor in University of Washington's College of Education Learning Sciences and Human Development Program. My research interests include ethnographic studies of how children and families use digital media in and around their homes, how preservice teachers take up innovative technologies in their classrooms, and designing new learning environments where young people use mobile, geospatial devices to learn within and about their communities. I am currently developing partnerships with Seattle Public Schools located in the south end of the city, as well as community-serving organizations where technological resources are scarce for neighborhood youth.

**Maya Israel**

University of Illinois at Urbana Champaign

My research lies in finding ways to make STEM meaningfully accessible to students at risk for academic failure, including students with learning disabilities and those living in poverty. My projects include development of gamified virtual internships in the STEM areas as well as the development of computational thinking for struggling learners. Gamified virtual internships will include the use of real data systems such as data from zero net energy homes or climate change data developed and maintained at UIUC within these systems and development based on Universal Design for Learning so students have multiple pathways for engaging in real-world STEM problems tied to STEM careers.

**Faye Jackson**

Tuskegee University

Faye Hall Jackson currently serves as the Management Department Head in the Andrew F. Brimmer College of Business and Information Science at Tuskegee University. In this capacity, she has direct oversight of four program areas – Business Administration, Hospitality Management, Sales and Marketing and Supply Chain Management. Faye's research interests focus on rural economic development and innovation, diversity and inclusion. During her time of leadership at Tuskegee University, Jackson initiated a plan to reconfigure the CBIS departments to better represent the balance of curriculum offerings and faculty expertise. She also led a scholarship push aimed at increasing the level and quantity of faculty research.

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Vicki Jeppesen

Northcentral Technical College

Northcentral Technical College serves all or part of 10 counties in central Wisconsin. Of the eight NTC campuses, one is an urban area and the remaining seven are rural. In response to this, NTC has developed Virtual College programs allowing learners to get their credential all online when it fits in their schedules. As an outcomes-based funded institution, NTC also relies heavily on data to ensure student persistence and success. NTC accepts its responsibility to support economic development by providing a skilled workforce in STEM related fields. I am NTC's Director of Resource Development & Institutional Advancement. As a participant in the Cyberlearning Workshop, I will represent NTC as a leading postsecondary partner with business, K16, government, and community organization; a flexible institution which uses data to continuously improve programming and make decisions; a college which wants to support its communities through commitment, innovation, creativity, and excellence.



Sandra Katz

Learning Research and Development Center, University of Pittsburgh

Sandra Katz is a Research Associate at the University of Pittsburgh's Learning Research and Development Center, where she directs the development and evaluation of intelligent, natural-language tutoring systems. Her research areas include investigating factors that make tutoring effective, increasing the participation of women and minorities in STEM, and archaeology.



Yanghee Kim

Utah State University

My interest lies in designing artificial tutors and peers in technology-based math and literacy learning and investigating how these tutors would help change learners' cognitive and affective characteristics, focusing on equity issues. I have used embodied pedagogical agents (digital, animated characters) and humanoid robots. In my past NSF project funded by Gender in Science and Engineering (2005-2009), I designed and studied the efficacy of an algebra learning environment using peer-like tutors on increasing 9th grade girls' self efficacy in learning math and developing their positive attitudes toward math learning. In another project funded by Utah State (2009-2010), I used peer-like agents to help develop 4th and 5th grader's beginning reading comprehension skills and

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self-efficacy in reading. These projects were implemented in public school classrooms and generated a number of peer-reviewed journal publications. In a recent project, funded by an international copration SK-Telecom in 2013, I designed a mobile-robot-based English learning app for preschoolers, whose home language is one other than English, to develop English langauge and literacy, using design-based research. I also pilot tested the company's system that combined a humanoid robot with a smart phone. Tentatively for CyberLearning, I would like to further explore, through design research, how an embodied, toy-like robot would be designed to help non-English-speaking children in the US with their development of English literacy and self-efficacy in learning.



Erica Knight

Spelman College

Erica L. Knight is an award-winning program manager and emerging leader in diversity and inclusion recruitment. As overseer of graduate relations at Spelman College she has developed multiple pipeline programs, facilitated professional development series, and aided students in receiving exorbitant funding to attend top tier and Ivy League graduate programs.



Jeremi London

Arizona State University

I hold B.S and M.S. degrees in Industrial Engineering (IE), and a Ph.D. in Engineering Education (ENE). I am currently a postdoc at Arizona State University, and recently accepted a tenure-track position to join the ASU faculty! As an NSF intern, I worked on projects at the intersection of cyberlearning & policy: performed a portfolio analysis of NSF investments in cyberlearning research over a ten year period, explored diffusion models surrounding cyberlearning resources with compelling results, developed a research agenda around MOOCs in engineering education. I currently work on the DIA2 project, which is a cyberinfrastructure characterizing NSF investments in R&D. I am interested in studying the "impact" of cyberlearning resources in undergraduate ENE, in the use of cyberlearning to facilitate personalized learning in ENE, and in promoting the integrating cyberlearning in the IE curriculum.

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Eni Mustafaraj

Wellesley College

I'm in my first year as a TT assistant professor of Computer Science at Wellesley College, MA. I teach courses in Introduction to Programming; Artificial Intelligence; and Data, Analytics, and Visualization. My institution is a women-only liberal arts college and I am interested in seeing a higher participation of women and minority women in technology. However, especially minority students find our introductory courses difficult and drop them early. My newest research project is about enhancing and instrumenting a recent programming environment (named JupyterHub) that supports multi-user notebooks (online documents where code is executed and annotated) in order to enable collaborative learning. My goal is to run an experiment setting with a treatment group and control group to assess whether such an environment will have an effect in learning and retention. I'm looking for partners in learning sciences to develop ways to measure collaborative learning in online environments.



Daryl Pfeif

Digital Forensics Solutions

Our core expertise is in digital forensics, proactive security, visualization, technical training and interactive media. / / We have developed forensics and security software for NIST, National Institute of Justice and DARPA. / / We are currently interested in further development of technical training to support transition in STEM education and careers.

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Mohamad Qayoom

LSU Health Sciences Center

I am interested in using wearable technology in cyberlearning. Our team has been testing and developing applications for Google Glass to use in education settings.



Yolanda Rankin

Spelman College

Yolanda is an Assistant Professor in the Computer & Information Sciences department at Spelman College. Her research interests include HCI for underserved populations, Computer Science education research, and video games for language learning. Transitioning African American students from being consumers to producers of technology motivates much of her research and teaching. She has more than twelve years of industry experience working at IBM Research Almaden, Lucent Technologies, etc. Yolanda completed her Ph.D. in Computer Science at Northwestern University, her M.A. in Computer Science at Kent State University and her B.S. in Mathematics at Tougaloo College.



Soo Young Rieh

University of Michigan

I am interested in developing a new research program called searching as learning. While web search engines are the most popular technology students use for their assignments and research projects, current search technology is optimized to satisfy short-term factual information needs and fails to serve as learning technology. I believe that there is an opportunity to leverage and extend current search technology to foster information exploration and enhance learning by reconfiguring search systems from an information retrieval tool to a set of scaffolded learning technologies. I envision my future projects in two directions: designing new search user interface enabling students to interact with online content through deeper reflection and metacognitive activities and developing alternative evaluative measures to demonstrate learning outcomes achieved during the search process.

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**Hossain Shahriar**

Kennesaw State University

One of my interests is in mobile application security, particularly disseminating malware app development and using malware app to teach concepts. I developed 2 demo mobile apps out of my own interests so far. See here / / 1. Content provider leakage issue: <http://cs.kennesaw.edu/~hshahria/mobileapp/contentprovider.html> / 2. Traditional malware app in the disguise of a tip calculator: <http://cs.kennesaw.edu/~hshahria/mobileapp/tipapp.html> / / I have applied them in classroom teaching at KSU in one upper division CS and one MSCS course in Spring 2015. / / I am interested to meet with strong collaborators who can assist me to develop a successful sustainable learning approach using similar mobile apps. /

**Johannes Strobel**

Texas A&M University

Computational Thinking in Elementary school / - Cyber-physical systems for learning. Use of 3D printing for learning of mathematics and science / - Codeveloped Hands-on Standards STEM in Action Learning modules (now available in 42 states and 15,000 classrooms)

**Timothy Summers**

Summers & Company

I am a executive advisor and strategist in the fields of organizational design and cybersecurity. I am one of the world's leading researchers in hacker cognitive psychology. Also, I am building tech bootcamps to teach rural, impoverished kids how to code and build their dreams.

**Neva Vogt**

College of Menominee Nation

The College of Menominee Nation has recently purchased and installed flipped classroom technology that can potentially allow us to provide distance education globally. At this time, we are research the possibility of utilizing this technology to provide courses/programs either as hybrid courses or completely online. We are at the starting stages of how we intend to implement this technology to its fullest capacity to benefit the students, and the Native American communities we serve. We collaborate with other universities across the nation on various research projects, such as

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State University of New York, University of Massachusetts, Michigan State University, University of Nebraska and multiple Wisconsin State Universities.



Jasmine Ward

Kennesaw State University

I received my BA in Psychology from Tuskegee University and an MPH in Health Behavior from the University of Alabama at Birmingham (UAB) School of Public Health. I earned my Ph.D. in Health Education and Promotion from UAB and UA in Tuscaloosa. I am a Certified Health Education Specialist (CHES) with a strong background in family centered, health disparity, and community based participatory research. Much of my focus is on the prevention and reduction of risk behaviors in disadvantaged adolescents and young adults. Most recently my work has focused on the adoption of mobile applications to support health behaviors change and the management of chronic health issues of minority populations.



Gloria Washington

Clemson University

Dr. Gloria Washington is an Intelligence Community Postdoctoral Research Fellow in the Department of Computing Science at Clemson University. She performs research on identity and emotion recognition using human physical characteristics. Ms. Washington will be moving into an Assistant Professor position at Bethune Cookman University in the fall and is interested in writing a cyberlearning proposal surrounding an exploratory training program for suffers of PTSD. She is interested in connecting with others interested in PTSD, training for virtual counselors, and/or evaluating the effectiveness of virtual therapy counseling. Ms. Washington holds M.S. and Ph.D. in Computer Science from The George Washington University and a B.S. in Computer Information Systems from Lincoln University.



Marcelo Worsley

University of Southern California

My interest is in improving STEM learning through hands-on learning approaches. The research associated with this includes 1) designing approaches to help students better connect between formal and informal learning experiences; 2) developing novel computational approaches for assessing learning in complex learning environments; 3) engaging students from underrepresented populations.