Association for Computer Educators in Texas

Promoting Computer Education

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Contents

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Keynote Address

Friday October 20, 2017 - Lunch, UC-A

WeTeach_CS Collaboratives #CS4SA

There were 3 WeTeach_CS collaboratives in San Antonio this spring and summer that worked to create more computer science teachers in the region. Hear about what the collaboratives and teachers did in the programs and what results were produced.

Dr Carol Luckhardt Redfield
Professor of Computer Science
Graduate Program Director
St. Mary's University

An Effective Interdisciplinary Freshman Experience Program

Mahdi Safa

Group project-based learning is perhaps the most effective way to acquire material and information across to students of all backgrounds, keep those students motivated in their field, and prepare them for their professional lives. The ability to work in an interdisciplinary group setting is one of the most important skills a college student can learn. Professionals in almost every field are required to work in groups of people from varying backgrounds to achieve a common goal, and many have a difficult time adapting to this setting. This study proposes a unique approach by which higher education courses can enrich students, introduce them to real-world problems, and encourage them to apply their theoretical knowledge to solve problems in interdisciplinary groups. The instructional concept focuses on placing students in an interdisciplinary group setting, taking them out of their comfort zones, exposing them to real problems, and ensuring that they work together toward a common goal. Vital skills necessary for achieving a high level of success, are introduced early in their scholastic career. Findings from this research indicate that students desired and benefited from such an interdisciplinary educational experience.

Beyond HB 5

Deborah K. Kariuki

The computer science for ALL movement in K-16 arena has been taking shape for the last several years. Two years ago, Texas legislature enacted HB 5 which state that all high school in Texas are required to offer a minimum of 2 computer science courses and count CS as a LOTE. This year the new HB3593 has gone beyond to bring computer science from Tech APPs to be part of CTE and states that CS courses can now be counted as credit for one of these course, Math, Science, and LOTE in the new bill. These changes were enacted to help encourage more students to take CS courses in high school. In this presentation, we will examine the impact of this new law in Texas and what this means to colleges and universities across the state. Everyone in CS education should be in-the-know of what is happening and how this is going to impact CS education across the State going forward.

Broadening Participation in Undergraduate Research

Peggy Doerschuk

Freshman interest in majoring in computer science has grown in recent years, but almost 50% of those majoring in computing do not complete their computing degrees. The highest attrition rates typically occur during the first two years. It is widely accepted that engaging undergraduates in research can promote their retention, but undergraduate research typically targets juniors and seniors with high grade point averages. If we can include freshmen and sophomores who are not necessarily the most talented, we have the potential to broaden the base of undergraduate researchers and retain more students in computing. This is not easy because freshmen and sophomores and students who are less talented often do not have the necessary skills and confidence to do research. The author has successfully engaged over 50 undergraduates in team research in computer science under the umbrella of three different grant supported retention programs since 2002. While engaging undergraduates in team research is not new, this work is innovative in that (1) most of the students have been female, minority, low income, and/or first generation students; (2) many have been B and even C+ students; and (3) many have been freshmen and sophomores. The students have presented their research in venues ranging from informal local talks to formal presentations at local, state and national professional conferences. Several have won awards for their research presentations. The presentation describes how research teams can be formulated and guided with a view to broadening participation in undergraduate research.

Building the CS Pipeline: WeTeach_CS K-12 Teacher Professional Development

Amy Werst

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According to the Texas Education Agency, in 2014 only 2% of Texas high school graduates have taken a Computer Science class. That same year, Texas colleges and universities only had 2,103 Computer Science graduates per Code.org. Of those graduates, only 16% were female. Today, there are over 38,000 open computing jobs in our state alone.

The WeTeach_CS program provides intensive and sustained K-12 professional development for Texas teachers with a focus on increasing the number of trained and certified Computer Science (CS) teachers along with equitable access for all students.

Face-to-face and online offerings strive to increase the number of certified Computer science teachers in Texas, increase the number of high schools that offer CS, increase the number of students that enroll in high school CS course, broaden and diversify student enrollment in CS courses to open doors for EVERY student, and expand coding, programming, computational thinking, and CS opportunities for students in K-8 to build a pipeline for a CS pathway in the STEM endorsement.

WeTeach_CS manages the Certification Incentive Program (CIP) that provides a $1000 stipend for Texas teachers who pass the CS 8-12 Test and obtain TEA CS certification.

The WeTeach_CS Collaboratives are comprised of 29 projects across the state of Texas that include institutions of higher education, educational service centers (ESCs), local education agencies, and nonprofit entities.

Cloud Security Issues

Dr. Garry L. White, CISSP, PhD

Many corporations are outsourcing their I.T. needs to large data-centers on the Internet. New problems arise. Who has the encryption keys? What assurance is there in segregation of different customers' data? What are the risks? And what impact does legal jurisdictions have on client's data at a vendor's data-center? Does the benefits justify the risks? This presentation covers the answers to these questions and looks at the levels of control between client and vendor. Legal and compliance topics are discussed. Finally, cloud application security and operations topics are also discussed. What will be stressed are the U.S.A. laws that were never designed for cloud computing.

Collaborative Multi-Scale Design Maps: Supporting Creative Team Learning Experiences Online

Nic Lupfer

We present a new hybrid online learning technology, collaborative multi-scale design mapping, to support creative team learning. Team project-based learning has been shown to improve retention, student satisfaction, diversity, and learning performance. Our integrated research and education project connects creativity with participation, through a creative learning platform across a range of courses at Texas A&M University.

Multi-scale design mapping involves collecting and organizing design artifacts to support an iterative creative design processes. Collected design artifacts could include web clippings, diagrams, labels, writing, images, video, and embedded documents. These artifacts are then spatially organized in an unstructured zoom-able canvas to create a design map. Like traditional maps, design maps spatially encode knowledge relationships. The problem is that as traditional linear media such as PDFs and PowerPoints grow long, relationships become hard to see. Multi-scale design maps support students in discovering relationships among design artifacts.

We present a novel online learning technology for supporting creative team projects, examples of how it has been integrated into different course pedagogy, preliminary data and findings from its use, and how others can incorporate the tool into their own projects or courses.

Computer Assisted Design of a Course Syllabus

Stefan Andrei

Computer Assisted Design of a Course Syllabus (CADCS) is aimed at developing an automated tool to generate syllabi in an effort to facilitate, streamline, and improve overall syllabi quality for the courses taught at Lamar University (LU). Generating an automated tool for syllabi creation is motivated by Lamar University Instructors, according to the Undergraduate University Curriculum Committee. It represents an important contribution for LU Community in helping both the Students and Instructors for viewing a simplified version of the syllabus for all departments and courses. The tool is also aligned with LU branding effort mentioned in LU strategic plan.

Computer Science Seminar: A Career Planning Course for Computer Science Majors

Pamela K. Fink

Much of a Computer Science major's curriculum centers on assuring that they acquire the technical knowledge and skills that they need in order to succeed in the workplace. However, little is usually done formally and consistently to ensure that they succeed in acquiring that first job. St. Mary's University Computer Science Department has developed a one-credit hour course to address this gap in a student's education. Called Computer Science Seminar, the course is offered at the Sophomore, Junior, and Senior levels during the fall semester and is required of all CS majors. Its goal is to get students involved in planning and executing their job search early in their college career. Topics covered in the course range from developing/maintaining a quality resume and effective job interview skills to learning business etiquette and appropriate attire. In addition, a major component of this course is the eight-10 representatives from the San Antonio area that are invited to come speak about their company and the types of jobs that they have to offer computer science majors. St. Mary's has included this course as part of their required computer science curriculum for four years. Data indicate that the students are learning a lot about the job search process and become engaged much earlier, resulting in the majority of CS majors successfully landing a job well before their graduation date. Additionally, the students have enjoyed spending time together so much that they launched a computer science club that meets every week called the Infinite Loops.

Currency Collector VR

Henry R. Idar III

The Currency Collector VR application is an educational game with a gaze-base user interface that was developed for Android smartphones with a gyroscope sensor using the game engine Unity. Using a VR head-mounted display (HMD) is recommended but not required to play this game. The game will have the user in a virtual environment walking around collecting currency from a selected country. United States of America, Canada, India, Mexico, and Saudi Arabia are countries where currency can be collected from. As currency is collected the users will become familiar with what it looks like and begin to remember their values.

The game has an auto walk feature that begins once the game is started. Users can walk in the direction they are gazing at. The auto walk feature will be temporarily disabled when the user gazes at the floor. Users can walk around the world collecting coins by simply walking through them. Collecting all the currency in each country will earn gold bars which can be used to purchase additional features in the game. Users can purchase landmark cubes for each country after collecting 8 gold bars.

Learning does not have to be boring! Virtual reality is an emerging technology that will expand the way people learn. Children or anyone who would like to identify currency could benefit from playing this game and have fun.

CyberMary: St. Mary's University at the Cyber-Map of San Antonio

Ayad Barsoum

Cyber threats are emerging more than ever in today's digital world, and organizations are faced with constantly staying a step ahead to avoid falling prey to cybercriminal attacks. In response, the Department of Computer Science at St. Mary's University offers a master's program that will provide students with knowledge, skills and best practices on how to monitor, secure and safeguard an organization's cyber assets. A uniquely St. Mary's program, the Master of Science in Cybersecurity combines technical rigor with sound ethics and implications to the law. To serve the needs of individuals who would like to increase their knowledge and skill levels in the field of cybersecurity in a short time frame, St. Mary's University offers a graduate Certificate in Cybersecurity. The certificate program focuses on presenting students with the fundamental principles and hands-on experience in protecting networks, computers, programs and institutional data from attack, damage or unauthorized access. At the undergraduate level, we propose to offer concentrations in cybersecurity and information assurance. Moreover, the Computer Science department offers summer camps for middle and high school students to raise students' awareness of the cybersecurity field, and increase interest in cybersecurity careers and diversity in the cybersecurity workforce of the nation. This talk covers the different cybersecurity programs at St. Mary's University. Some details about course descriptions and some hands-on attacks will be shown.

Educating 21st Century GIS Technicians with UAS Technology

Phillip Davis, Ed.D.

The Unmanned Aircraft System Technology Education Consortium (UASTEC) is a three year (2016-2019) NSF-funded project designed to build the state of Texas first comprehensive UAS academic program for two year community colleges. The $788,000 project started in September 2016 and will run for three year through summer 2019. The project has the following main goals:

Create three new UAS technology courses to train GIS technicians.
Develop a new statewide recognized (THECB) Occupational Skills Award degree.
Secure the approval of our new courses under the Workforce Education Course Manual (WECM) by the Texas Higher Education Coordinating Board (THECB) for statewide replication.
Train teachers to integrate UAS into their high school and college curriculums.
Sustain the GIS/UAS program at Del Mar College through partnerships with employers, academic institutions, UAS and GIS industry, non-profit and professional organizations.
In this presentation we will demonstrate our curriculum materials, lab examples, and assessments. We will demonstrate the types of field experiences in flight planning, data acquisition, data post-processing and GIS analysis the courses will cover. We will discuss the Student Learning Outcomes with audience members to see if they agree or disagree with the skills we seek to train in our GIS technicians. Expect a highly interactive and participative session.

Finding Computer Science Teachers Across the Disciplines

Andi Parr

According to the Texas Education Agency, only 2 percent of Texas high school graduates completed a computer science class in 2015. ESC 12 WeTeach_CS was one of only 29 computer science grants funded by TEA. Come learn about our members, successes, challenges, and where we are going from here.

Inquiry and Equity in Teaching CS

Deborah K. Kariuki

Inquiry learning allows students to discover and come to their own "truths" about the material that they are learning. It has been shown in research that students who engage in inquiry learning tend to be successful in learning, retaining, and understanding the subject matter better than most other forms of teaching. In inquiring learning the teacher/professor is a facilitator of learning. Allowing students to discover the material with few carefully designed prompts. Students then either bring in their background knowledge to understanding of the material to in answering the questions posed or research the material that they don't know hence inquiring and learning without the teacher lecturing to the student and bring their own understanding to the subject matter. In equity, the lead facilitator ensures that material and examples used in prompts are suitable for the audience before them and not examples that are found in most textbooks for computer science that don't talk to the audience seating before the facilitator. Audience attending these presentations will see examples of inquiry and equity based teaching that is useful and relevant to students of all ages.

Interactive web application development

Rajan Alex

The prolific use of Internet in our everyday life has enabled the continued growth of web applications. The very basic script used for building web pages is still HTML. Since the first web page created in 1990, HTML has undergone several revisions and in doing so web development has simplified and improved the user experience. Web pages today can change its appearance in response to a user's browser size. The original web pages which were static are now not only static but also dynamic. There are various technologies available to enable dynamic web paging. This work is to give a gentle introduction to interactive webpage development using JavaScript on the client side. We will introduce jQuery using JavaScript, and look at functional programming in the context of callback functions to created interactive webpages. The hands-on work will include web application development using JavaScript and jQuery where the script resides either in the webpage file or in an external file. To run JavaScript, the work will use a web browser.

Introducing Deep Learning in an Introductory Artificial Intelligence Class

Peggy Doerschuk

In the past few years, deep learning has made breakthroughs in many areas, including robotics, search engines, games, diagnostic systems, smartphones, and vision. It is used in Google's Android phones for speech understanding and generation, improving accuracy to over 95%. In May of 2017, Google's team used deep learning to defeat the human Go master. Deep learning is also used by IBM, Facebook, Microsoft, Yahoo, Baidu, and many other technology companies, and there is a strong job market for individuals with expertise in this area. The author has created a module for introducing deep learning to students in an Introduction to Artificial Intelligence class. The Intro to AI class provides a broad coverage of many AI topics, only one of which is machine learning, so an in-depth coverage is not practical. The instructional materials have been developed so as to give students a basic understanding of deep learning and its applications and some hands-on experience. The author will present these materials, which include PowerPoint slides, online demonstrations of deep learning used in computer vision and games; and a homework assignment. The homework assignment gives students hands-on experience in deep reinforcement learning as applied to games. Students read a paper describing the approach, experiment with learning parameters, and analyze the results, without having to program.

Mentoring the Development of Friends with Different Abilities

Carol Luckhardt Redfield, PhD

An educational computer game was developed in GameMaker Lite 8.1 for a science fair project that had 69 subjects take a pre-test, play the game, and take a post-test about learning disabilities (ADHD, autism, Asperger's, dyscalculia, dyslexia, physical). The game Friends with Different Abilities presented information within the twelve rooms of the game, and it is available to download at www.EducationalComputerGaming.com. The goal of the game was to complete tasks in the rooms for an orientation of a school. The project showed that a game can be made to present information about disabilities and that it was effective in learning about the disabilities. This presentation discusses the ups and downs of mentoring the development of the game and the process to test its effectiveness, as well as the awards won along the way.

Preparing Students for Effective Communication in Cyberspace

Shohreh Hashemi

Three years ago, the state of Texas updated the undergraduate core curriculum that eliminated the computer literacy course from the core curriculum. As a result of this new curriculum, students are no longer required to demonstrate competency in the use of computers or information technology as a part of their graduation requirements.

This presentation is a review of how one university designed a course to provide sophomore transfer students both the information technology knowledge and the skills to use various software packages and the Internet to effectively communicate in cyberspace. Additionally, fundamental principles of communication and digital technology tools are utilized to enhance students' oral, written, listening and team communication skills.

Super Saturday Teaching high ability students

William A. Booth, Ph.D.

Super Saturday was a one-day introduction to Python programming presented to high ability students in grades 4-12. The morning session was for students from grade 4 through pre-algebra and the afternoon session was for students who had finished algebra one through the 12th grade. This talk will discuss the curriculum used for this workshop and share lessons learned.

Surviving the impossible! How information technology, namely social media, has helped people in a war torn Syria to connect

Sam Hijazi, Ph.D.

With the advances in social media such as Facebook, Twitter, Skype and many other valuable tools and sites in the WWW, learning has become independent of time and geography. The situation in Syria has created enormous difficulty on college students and all types of learners to continue their learning. The study explores the options that have been available to these students to continue learning. Also, the study will discuss the difficulties and tragic events that minimized the opportunity for the learners to continue learning in that country. This study includes a survey to question students and learners at different ages, educational backgrounds, and wealth status about how technologies have helped them to continue their education. One issue will prevail in the study, that technology and human spirit can work together to overcome some of the most challenging conditions know to us in recent years.

Teaching Root Cause Analysis in a Security Course

Dr. Garry L. White, CISSP, PhD

Even with laws and technology, corporations still have computer/information security incidents.
Not only do corporations need to protect, but also be able to detect and respond. But, what happens after that? Understand the cause to take corrective actions. This is where Root Cause Analysis comes in. It is used in many fields. However, it is not taught in higher education information/computer security classes. There is very little literature on applying RCA when there is an information/computer security incident. This presentation shows the need to teach RCA in an information security course. The presentation goes on to the benefits. In other words, learn how to learn from mistakes.

When more computer professionals have RCA knowledge, causes can be found which lead to corrective actions in policies, processes, and procedures.

The Impact of Collaboration/Cheating on Academic Performance

William A. Booth, Ph.D.

At Baylor University students learning to program for the first time are required to complete the majority of their programming assignments individually. Novice programmers frequently question why they are required to work individually without using the Internet or classmates to help solve problems. In the summer 2017 the impact of collaboration was studied to determine its impact on the academic performance of novice programmers.

Understanding How Firewall Works through Working on iptables

Chao Gong

The network firewall is an important topic in cybersecurity education. Many cybersecurity textbooks include the material discussing the firewall in theoretical aspect.

A hands-on project on firewall is essential for students to learn the material in the textbook. The hands-on experience of setting up the firewall reinforces the concepts and principles of firewall. In addition, designing the firewall configuration (i.e., packet-filtering rules) is a process of applying the knowledge of the Internet protocols learned in computer networking courses.

This presentation introduces iptables, a built-in firewall utility on Linux, and hands-on projects based on iptables. Inside Linux kernel 2.4 and later versions, there is a component, called netfilter, providing the firewall functionality. The iptables program is a user-space program used to set up the packet-filtering rules of the Linux kernel firewall.

The iptables program on Linux is an ideal venue for firewall projects. First, Linux is free and can be installed alongside existing Windows installation. Secondly, iptables is pre-installed in virtually all types of Linux distributions. Lastly, iptables has a command-line user interface. The command-line interface is universal across Linux distributions and easier to teach.

Using App-based Reinforcement in Intro Computer Science Programming Classes

Matthew Fendt, Ph.D.

Intro programming classes garner students with a wide range of programming experience. The intro class at Baylor is designed to provide students rigorous lecture and programming experience to help them succeed. However, the assignments are standardized for the whole class according to a set of instructional goals. The goal of this research is to provide a phone app-based assessment tool for the students to help them gauge their learning. The app is designed to provide short, low risk/pressure quizzes and adapts the resources it provides based on the quiz results. These resources include text and videos from their textbook publisher for material that the students got wrong on the quiz. The software is intended to tap into the students' propensity for short interactions on their phones while providing the appropriate level of additional resources based on their needs.

Using MS Excel as a data analytics tool. What is new, convenient, and inexpensive?

Sam Hijazi

Excel, as a spreadsheet, is very robust application software. Data analytics (DA) is taking the world by storm. You hear about big data (BD) and DA almost in every information technology articles. This article examined Excel to see if there any chance for using it as a DA tool. Excel 2013 added PowerPivot and Power View. These features allow users to expand the number of the rows beyond the 1 million records available in every spreadsheet in Excel. This presentation builds on a previous paper by the presenter to further explore the use of PowerPivot along with Data Analysis Expression (DAX). DAX comes with functions very similar to the one you find in an Excel spreadsheet. It is a powerful formula language. In addition to being a strong formula language, DAX has the capability of working with a relational database to produce an aggregate calculation. This presentation will not only discuss PowerPivot as a tool in an introductory class in data analytics but also will demonstrate the use of this powerful tool.

Why Teach Microsoft PowerShell

Ron Carswell

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Why Teach PowerShell?
Microsoft describes PowerShell as "a task-based command-line shell and scripting language… built on the .NET Framework. PowerShell's capabilities allow you to simplify and automate tedious and repetitive tasks by creating scripts and combining multiple cmdlets together.
What is so great about PowerShell? Why should your students learn it?

It's here to stay
Most Microsoft products will eventually use it
Microsoft server products can be managed
It can make your job easier
Many GUIs are PowerShell front ends
Microsoft certification exams contain PowerShell questions
Microsoft considers it important
If you do not learn it, someone else will
What can your students do with PowerShell?
Here are some things that they can do easily in PowerShell:

Create user accounts in Active Directory
Navigate the Windows Registry like the file system
Get information about the make and model of a computer
Add/Remove a printer
Install an MSI package on a remote computer
Enter into a remote PowerShell session
Run a script on a remote computer

Round Table Discussion

Setting Up a Raspberry Pi User Group

Ron Carswell

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What is AlamoARIA? AlamoARIA is Alamo Raspberry pI hAckerspace. A hackerspace is a community-operated workspace where people with common interests, often in computers, technology, and electronics can meet, socialize and collaborate. The Alamo Raspberry pI hAckerspace supports computing for the Raspberry Pi which is a series of credit card-sized single-board computers developed in the United Kingdom by the Raspberry Pi Foundation to promote the teaching of basic computer science in schools and developing countries.

In this roundtable, we will discuss setting up of a user group to support the Raspberry Pi.

The future of teaching introduction to programming. What is there? Which language is the best? How long do we need to wait to change?

Dr. Sam Hijazi

It is about time to discuss the available computer languages for introductory programming in both fields: Information Systems (IS) and Computer Science (CS). Is it C? Or maybe it is Python, Java, or even Visual Basic for Application (VBA) found in Excel? This is a round table discussion that will cover the available computer languages in academia and the business world to use in an introductory programming class. The discussion should be timely, 2017, and appropriate to instructors to prepare our students for a degree in IS or CS. The discussion should focus on these two fields knowing that they are related but still different. The discussion will result in spotting out the most introductory languages for both fields.

Bridging K-12 CS with College CS

Deborah K. Kariuki

In this round table discussion we will look at the issues what is currently happening across our state with K-12 computer science courses and College courses. How can colleges partner with K-12 to ensure that proper pedagogy is happening so that the students are well prepared when they come to college to reduce the current attribution in the underrepresentation populations in computer science courses .

As we embark in the computer science for ALL mantra that is all around the world today. There is a need for an open and candid dialogue between Universities/Colleges, and K-12 to ensure what is happening in the lower grades is going to make a difference to all students. The candid conversation needs to start with what is the end game here? Are we looking to ensure that all students can code? What is coding and how does it impact the students who are doing this in K-12? Is coding computer science? Do teachers who are taking a crush course for certification using pseudocode prepared to teach computer science in high school? And what is all the rave computational thinking? These conversations will lead to research or white paper that ACET can produce with our voice in this talk of CS for ALL .

List of Presenters

Rajan Alex

Dr. Rajan Alex joined the West Texas A&M University faculty in 1995. He received a bachelor's degree in mathematics from the University of Kerala, India, in 1977. He received a master's degree in mathematics from New Mexico State University in 1987. He received a Ph.D. degree in applied mathematics in 1994 and a master's degree in Computer Science in 1995, both from Texas Tech University. He is a Sun Microsystems certified Java programmer.

Dr. Rajan Alex teaches courses in computer science that are both programming related and theoretical. He is interested in teaching programming languages as a tool for problem solving. He has taught courses such as Analysis of Algorithms, Discrete Structures, OOP, Computer Networking, Operating Systems, Data Structures, Artificial Intelligence, Compiler Design, Assembly Language, and Computer Architecture.

Dia Ali

Dia Ali is a Professor of Computer Science at the University of Southern Mississippi with active research agenda in Databases and Mobile Agents. He is been teaching at USM for the last 20 years.

Stefan Andrei

Dr. Stefan Andrei graduated B.Sc. and M.Sc. from Cuza University of Iasi, Romania, in 1994 and 1995, respectively. He got his PhD from Hamburg University, Germany, in 2000 as a World Bank Scholarship Japan Graduate student. He was a recipient of a postdoctoral fellowship from Singapore-MIT Alliance between 2002 and 2005. He is currently an Associate Professor and the Chair of Department of Computer Science with Lamar University.

His research interests include real-time embedded systems and software engineering. He has more than 22 years teaching courses such as, real-time embedded systems, software engineering, foundations of computer science, computer law and ethics, and programming languages. Stefan has been on the Program Committee for more than 50 prestigious conferences. He was invited as a Speaker at several universities and private organizations. He has already been a co-author of more than 100 peer reviewed papers at international reputable journals and conferences. Among his main contributions, he proved the problem of incremental counting satisfiability and invented the LRTL (Linear Real-Time Logic) useful for verification of real-time embedded systems specifications.

His research got more than 240 non-self scientific citations. He was and is involved as a PI, co-PI, or Senior Personnel in more than 12 funded research projects. He is a Senior Member of the ACM and an IEEE Member. More details about Stefan may be found at the address: cs.lamar.edu

Hani Alshamrani

Hani Alshamrani is a faculty member at University of Jeddah, Saudi Arabia. His previous works included training, teaching and research. He is currently a Master student at St Mary's University, San Antonio, USA. He has completed his Bachelor degree in Computer Science from King Abdulaziz University, Jeddah, Saudi Arabia, in 2010. His current research interests are mainly in the area of social engineering, eLearning, gamification and awareness training.

Ayad Barsoum

Ayad Barsoum is an Assistant Professor of Computer Science at St.Mary's University, San Antonio, Texas. He is also the graduate program director of the MS in Cybersecurity at St.Mary's University. Dr. Barsoum received his Ph.D. degree from the Department of Electrical and Computer Engineering at the University of Waterloo (UW), Ontario, Canada in 2013. He is a member of the Centre for Applied Cryptographic Research at UW.
Dr. Barsoum has received the Amazon Web Services in Education Faculty Grant for funding his research and teaching activities. At the University of Waterloo, he has received the Graduate Research Studentship, the International Doctoral Award, and the University of Waterloo Graduate Scholarship.
Dr. Barsoum received his B.Sc. and M.Sc. degrees in Computer Science from Ain Shams University, Cairo, Egypt, in 2000 and 2004, respectively. He was awarded the Ain Shams University Scholarship of Excellence four times. His main research interests include: data integrity in cloud computing systems, information and network security, access control and cryptographic protocols, knowledge discovery and data mining

William A. Booth, Ph.D.

Dr. Booth is a Senior Lecturer in the Department of Computer Science at Baylor University. He earned a BS in secondary education from Texas A&M university in 1986. After teaching in the Texas public school system for six years he returned to school in 1992. In 1994 Dr. Booth earned a MS in Computer Science from Baylor University. He worked for six years as a programmer analysis at Baylor before becoming a full time member of the faculty in 2000. In 2013 Dr. Booth earned a Ph.D. in Educational Psychology from Baylor. His current area of research includes the pedagogy of computer science and computational thinking.

Ron Carswell

Mr. Ron Carswell has more than 20 years of computer experience with both small and large organizations. Mr. Carswell holds a bachelor's degree in business administration from the University of Texas and a master's degree in business administration from Baylor University. He has received A+, Network+, CTT+, MCSA, MCSE, CCNA, and MCDST, MCITP, and MS:Server Virtualization with System Center certifications. He is currently a professor emeritus at San Antonio College, where he teaches MCSA, and MS:Server Virtualization certification courses. Mr. Carswell has written numerous textbooks for Course Technology and Cengage Learning. In addition, Mr. Carswell authored TEST DRIVE THE MICROSOFT PRIVATE CLOUD for Cengage PTR.

Phillip Davis, Ed.D.

Dr. Phillip Davis is a 35 year computer science educator who specializes in GIS technology. He has served as principal investigator (PI) on numerous NSF and DOL grants amounting to $10M over the past decade. His latest project, UASTEC, is developing state-of-the-art curriculum for GIS/UAS technicians.

Peggy Doerschuk

Peggy Doerschuk is a University Professor of Computer Science at Lamar University in Beaumont, Texas. She has performed research and taught classes in Artificial Intelligence and Machine Learning for 25 years, has published over 50 papers on artificial intelligence, increasing participation in STEM, and computer science education, and has received several awards for teaching and research.

Matthew Fendt, Ph.D.

Dr. Matthew Fendt is a lecturer at Baylor University. He teaches in the Video Game Design concentration of the Computer Science program. Dr. Fendt is interested in serious and educational games.

Pamela K. Fink

Dr. Fink is a computer scientist who has worked and taught in the field for over 35 years. She has had diverse experience in the field, working first as a research scientist and then manager at Southwest Research Institute. Later she worked for a small biotech start-up and then started her own biotech company to do biological modeling to support drug development. Dr. Fink is currently an Associate Professor and Chair of the Computer Science Department at St. Mary's University in San Antonio, Texas teaching courses ranging from introductory computer programming to senior project. Her research over the past couple of decades has centered around computer modeling of biological systems to support drug development and treatment regimens. For the past decade she has worked with the US Air Force Research Lab at Ft. Sam Houston in the area of light effects on cells.

Chao Gong

Dr. Chao Gong is an Associate Professor of Computer Science at University of Mary Hardin-Baylor, Belton, Texas. He obtained a Ph.D. degree in Computer Science from the University of Texas at Dallas in 2007. Since then, he has been teaching at University of Mary Hardin-Baylor.

Jean Gourd

Jean Gourd is an Associate Professor and Program Computer Science at Louisiana Tech University with active research agenda in Cyber Security & Mobil Agents. He is the program Chair of the of the CS program in the department.

Shohreh Hashemi

Shohreh Hashemi is an Associate Professor of Management Information Systems (MIS) at the University of Houston-Downtown where she has taught MIS courses in face-to-face, hybrid, and online settings for more than a decade. She is the co-recipient of the UHD Award of Excellence in Teaching, and recipient of two UHD Excellence in Service Awards. She is an active member of a number of professional organizations including Association of Information Technology Professionals (AITP), Decision Sciences Institute (DSI), and Association for Computer Educators in Texas (ACET). She has published extensively in various research areas of Information Systems including in the Journal of Enterprise Information Management (JEIM), Information Systems Education Journal (ISEDJ), and MTC Global Journal of Management & Entrepreneurship. Her current research area is focused on Information Systems Online Education.

Sam Hijazi

Sam Hijazi teaches information systems at Texas Lutheran University. This is his 9th here in Texas. Before that, he taught 15 years at Florida Keys Community College and Saint Leo University in the Navy Base, Boca Chica.

Henry R. Idar III

Henry R. Idar III was born and raised in San Antonio, TX. He retired from the military after serving 20 years in the Marine Corps and completed his Bachelor of Science in Computer Information Systems at The University of the Incarnate Word.

Passionate about continuing education and emerging technology, he currently attends St. Mary's University to complete the Master of Science in Computer Science program while being a Graduate Assistant.

In his free time, Henry enjoys spending time with his spouse Karen and his two sons Kamren and Kaiden.

Deborah K. Kariuki

Deborah Kariuki is a Computer Science Professional Development Specialist at the University of Texas at Austin. She is a fierce advocate for Computer science for ALL. She is currently training post-service and pre-service teachers for CS certification. She is also the project coordinator for a collaborative of Google Grant CS-Fellows between the Center for STEM ed at the University of Texas and Huston-Tillotson. Deborah is the current vice-president for CSTA-CS4TX vice president of central Texas chapter. She a CS Evangelist committed to Equity in CS education.

Jeremy Kackley

Jeremy Kackley is a Software Developer, with over 7 years of experience Noetics Strategies, Inc. with active research agenda in Mobile Agents. He has been at Noetics for the last 7 years.

Carol Luckhardt Redfield, PhD

Carol Luckhardt Redfield, PhD is a Professor and Graduate Program Director for Computer Science at St. Mary's University in San Antonio, Texas. She worked in the computer industry for 15 years including at Mei Technology Corporation, Southwest Research Institute, IBM and Bell Telephone Laboratories. Her PhD is from the University of Michigan in artificial intelligence and gaming. She specializes in educational computer games. She is married to an engineer, and they have two children.

Nic Lupfer

Nic Lupfer is a PhD student at Texas A&M University and graduate research assistant with the Interface Ecology Lab. His research involves designing and evaluating creativity support tools for both individual and team

processes through free-form web curation and multi-scale design mapping.

Bill Hamilton is a PhD candidate at Texas A&M University and graduate research assistant with the Interface Ecology Lab. His research involves digital communities, live video streaming, and designing/evaluating new ways of supporting participatory learning experiences in situated online education communities through the collaborative composition of live media.

Andruid Kerne is a professor of computer science at Texas A&M University and interdisciplinary researcher working to invent the future of human expression. His Interface Ecology Lab develops human-centered systems that amalgamate design, algorithms, semantics, software, and hardware. In conjunction with computing, his lab synthesizes methods from art, design, psychology, and sociology.

Andi Parr

Andi Parr earned a Bachelor of Science degree in Mathematics at Kansas State University in 1999 and her Masters of Arts in Math Education at the University of Texas at Austin in 2007. She has taught various levels of high school math in both South Carolina and Texas. Andi is currently a Secondary Math Specialist at Education Service Center Region 12 located in Waco, Texas.

Mahdi Safa

Dr. Mahdi Safa is an Assistant Professor in the College of Business of the Lamar University, pursuing research on design and optimization of supply chain processes, maritime/coastal/port construction, modeling and simulation, energy systems, and integration of new technologies in megaproject. He has 15+ years broad management experience, specializing in planning, budgeting, organizing, and controlling resources, procedures, and protocols. Dr. Safa has a unique combination of engineering and business development expertise by focusing Ph.D. and Masters in Construction Management, Industrial Engineering, and Business Administration. He has received several research and teaching awards and has numerous publications.

Greg Speegle

Dr. Greg Speegle earned a Bachelor of Science in 1984 from Baylor University and a Doctor of Philosophy in 1990 from the University of Texas. Dr. Speegle has authored multiple publications and has an academic specialization in databases. He is currently the chair for the Department of Computer Science at Baylor University.

Amy Werst

As the Director of Strategic Initiatives at UT Austin's Center for STEM Education, Amy Werst manages the statewide WeTeach_CS Team, Collaboratives, trainings, and day-to-day activities as well as the Code.org Regional Partnership.

Garry L. White, CISSP, PhD

Garry L. White is an Associate Professor in the Computer Information Systems department at Texas State University in San Marcos, Texas. He holds a MS in Computer Sciences from Texas A & M University – Corpus Christi and a PhD in Information Systems Education, from The University of Texas at Austin. Professional

Certifications from the Institute of Certified Computer Professionals (ICCP) include C.D.P, C.C.P., C.S.P. and Expert Certified in Security Systems. He also holds the Certified Information Systems Security Professional (CISSP). He has been on the Texas State University faculty since 1997. His research interests and work are in the areas of computer education, human factors with computer technology, infrastructure security, Internet security, privacy, and global assurance. He has published papers in journals such as the Journal of Computer Information Systems and Journal of Information Systems Education. He was a guest editor for a special issue of the Journal of Information Systems Education; Global Information Security and Assurance in IS Education.

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