An Ecosystem for Big, Smart, and Fast Data Economies
Welcome to Data Summit 2019!

Welcome to Data Summit 2019, our fourth annual event hosted by NSPARC. I attended first as an audience member, then as a moderator, and I’m looking forward to serving as your master of ceremonies this year. I was so impressed with previous Data Summits and how the study of data application impacts all of us in our work roles, family responsibilities, and literally all aspects of life. Previous conferences focused on data-driven decision-making and smart cities, and this year takes an even broader approach with the theme “Cybernetic City: An Ecosystem for Big, Smart, and Fast Data Economies.”

Data can help us improve our lives if we understand the details, or we can become overwhelmed by our lack of knowledge. This event will help us gain new perspectives from many experts.

You will have the opportunity to learn how data science impacts all of our social systems from professionals representing diverse organizations including cybersecurity, federal and state government, law enforcement, education, economic development, athletics, public relations, genetics, healthcare and rehabilitation, consulting, various industries, and foundations. Our guest speakers are experts from across the state and all over the country and Canada.

Thank you again for attending, and I look forward to reconnecting with longtime friends and meeting new colleagues. Please provide us with any suggestions to enhance next year’s Data Summit, and we hope to see you again next year.
Check-in
• Poster Symposium (G)
• Data Tech Petting Zoo
1:30 - 2:00pm
Welcome and Conference Opening by Dr. Julie Jordan (B)
2:00 - 2:15pm Break
2:15 - 3:30pm Breakout Session I
• Technology Education Today for the Workforce of Tomorrow (F)
• Bots and Deepfakes as Influencers in the Social Media Landscape (D)
• The Quantum Day of Reckoning: When Quantum Computing Will Break Most Crypto and What You Can Do To Prepare (R)
3:30 - 3:45pm Break
3:45 - 5:00pm Breakout Session II
• Transforming the Global Energy Economy with Data (F)
• Bringing Intelligent Security to Big Data (D)
• Deploying Machine Learning in Common Devices to Bring Disruptive Products to Market (R)
5:00 - 7:30pm Reception (B)

Registration and Breakfast
7:00 - 8:00am
8:00 - 9:00am
Panel: How Data and Technology Are Shaping the Workforce of the Future (B)
10:30 - 10:45am Break
10:45 - 12:00pm Breakout Session III
• Wearable Sensors in Athletics: The Data Ecosystem in Sports (F)
• Integrated Data for Community Resilience (D)
• 23 and Criminology: The Unintentional By-Product of Genetic Genealogy (R)
• Great for Business: How Data Prove Workers with Disabilities Help Companies Thrive (P)
12:15 - 1:45pm Lunch and Keynote (B)
1:45 - 2:00pm Closing

A new addition to Data Summit 2019 is the juried poster symposium, which will highlight the hard work and research rigor of the next generation of data scientists. This session is an opportunity for students to share their accomplishments in data driven research with business and academic leaders. The students will be eligible for Data Summit’s “Research in Practice” Award. An evaluation panel will select the award recipients, one undergraduate and one graduate. Winners will be announced at the luncheon on Friday.
Julie Jordan is the interim vice president for research and economic development at Mississippi State University. As the chief research officer for Mississippi’s leading research university and land-grant institution, she oversees a growing and increasingly diverse research portfolio. A Carnegie Foundation R1-Very High Research Activity Doctoral University, Mississippi State’s research expenditures totaled nearly $241 million in FY 2017, accounting for more than half of the total in R&D expenditures reported by all Mississippi institutions. The university is a strong partner with the State of Mississippi in economic development, and has played a significant role in efforts to recruit leading companies to the state.

Dr. Jordan continues to serve as associate vice president for international programs and executive director of the MSU International Institute. She has worked with major funding agencies, university leaders, and the Office of Research and Economic Development to expand the university’s multi-faceted partnerships and collaborative relationships around the world.

Dr. Jordan holds a Bachelor of Science degree in Industrial Engineering and a Master of Science degree in Education Technology from Mississippi State University. She earned a Ph.D. in International Development from the University of Southern Mississippi.

Rob Roberson represents District 43 in the Mississippi House of Representatives. He also serves as vice chair for the House Education Committee. Roberson takes pride in serving his community and state on several levels. He is affiliated with the Greater Starkville Development Partnership. Prior to becoming a Mississippi Representative, he served on the Starkville Board of Aldermen.

Roberson is the board attorney for the town of Sturgis, Mississippi and a member of the Mississippi Bar Association. He earned a bachelor’s degree in Business Administration from Mississippi State University and a juris doctorate from the Mississippi College School of Law.

Julie Jordan
Interim Vice President for Research and Economic Development, Mississippi State University

Rob Roberson
Representative of District 43, Mississippi
FRIDAY WELCOME

Dr. Mark Everett Keenum became Mississippi State University’s 19th president on January 5, 2009, and he has guided his alma mater to unprecedented heights, including record enrollment growth and more than $1 billion in major renovations and new construction.

MSU is a Carnegie Foundation R1-Very High Research Activity Doctoral University, and ranked by the National Science Foundation as a “Top 100” research university. The Chronicle of Higher Education has designated Mississippi State as a “Great College To Work For” for the past three years. The Phi Beta Kappa Society, the nation’s oldest and most prestigious academic honor society, granted the university a chapter last summer after a rigorous, multi-year review.

Dr. Keenum is a former president of the Southeastern Conference, and he was named chairman of the College Football Playoff’s Board of Managers last summer. In 2018, he was elected to serve a six-year term on the Board of Trustees of the Mississippi Department of Archives and History.

Dr. Keenum’s passion for international engagement and transformative research and service has positioned Mississippi State as a global leader across a range of disciplines. He is chairman of the Board for International Food and Agricultural Development, and he also serves as chairman of the Foundation for Food and Agriculture Research.

A graduate of Corinth High School, Dr. Keenum earned an Associate in Arts degree from Northeast Mississippi Community College in Booneville and was a member of the Northeast Tigers football team. He holds a B.S., M.S., and Ph.D. in agricultural economics from Mississippi State. He is married to the former Rhonda Newman of Booneville, also an MSU graduate. They have four children: Rett, Mary Phillips, Katie and Torie.

MORNING KEYNOTE

Congressman Michael Guest is a lifelong conservative Republican who believes in limited government, traditional Mississippi values, free market economic principles of lower taxes and fewer regulations, the right to life of the unborn, a strong national defense with full support of our military, 2nd Amendment gun rights, and all other individual liberties guaranteed by the Constitution.

While serving as District Attorney for Madison and Rankin Counties, Congressman Guest earned a record for fighting for Mississippi’s families by prosecuting criminals, and he continues to fight for Mississippi in the U.S. Congress. As a member of the Committee on Homeland Security, he is committed to securing the southwest border to help curb the flow of illegal drugs into communities.

Congressman Guest also serves on the House Foreign Affairs Committee where he supports sound international policies that provide strong economic opportunities for Mississippi, help keep citizens safe, and ensure national interests remain secure.

Mark Keenum
President
Mississippi State University

Congressman Michael Guest
U.S. Congressman
Mississippi
To address the needs of cybercrime victims, Kristin Judge founded the nonprofit organization, Cybercrime Support Network. She works with federal, state, and local law enforcement, and consumer protection agencies to help consumers and small businesses affected by cybercrime. As a thought leader, Judge has been seen on the C-SPAN network, local news outlets, and has been called upon by technology publications like SC Magazine and Government Technology to share best practices for online safety.

She was named among SC Media’s Women in IT Security: Influencers in 2017 and received the 2018 Women of Influence Award by the Executive Women’s Forum on Information Security. Tony Sager is a senior vice president and chief evangelist for CIS® (The Center for Internet Security, Inc.). He leads the development of CIS Controls™, a worldwide consensus project to find and support technical best practices in cybersecurity. He previously served 34 years as an information assurance professional at the National Security Agency (NSA). In 2001, Sager led the release of NSA security guidance to the public. He also expanded the NSA’s role in developing open security standards.

Sager’s awards at NSA include, but are not limited to, the Exceptional Civilian Service Award and two Presidential Rank Awards. He is also an active volunteer in numerous community service activities, serving on advisory boards for several local educational institutions and numerous national-level study groups and advisory panels. Sager holds a bachelor’s degree in mathematics from Western Maryland College and a master’s degree in computer science from Johns Hopkins University.
How Data and Technology Are Shaping the Workforce of the Future

Workplace changes are accelerating due to emerging technologies and the vast amounts of data available at our fingertips. Artificial intelligence, communication technology, and people analytics are just some of the factors transforming the workforce of today and tomorrow. What does all of this mean? What other changes are happening in the workforce and how are we preparing workers? We’ve assembled a panel of top-notch national experts to help you understand how data and technology are shaping the workforce of the future.

MODERATOR

Sid Salter
Director, Office of Public Affairs
Mississippi State University

PANEL

Workplace changes are accelerating due to emerging technologies and the vast amounts of data available at our fingertips. Artificial intelligence, communication technology, and people analytics are just some of the factors transforming the workforce of today and tomorrow. What does all of this mean? What other changes are happening in the workforce and how are we preparing workers? We’ve assembled a panel of top-notch national experts to help you understand how data and technology are shaping the workforce of the future.

Television and campus radio station.

MSU’s 2004 National Alumnus of the Year, Salter has enjoyed a unique career as an award-winning journalist, columnist, television commentator, talk radio host, author, educator, and university administrator. The Washington Post has listed him as “one of the nation’s best state political reporters.” He is a member of the Mississippi Press Association’s Hall of Fame. His syndicated columns have been published in Mississippi and several national newspapers since 1983.

In 2011, Salter wrote the biography of legendary MSU broadcaster Jack Cristil, which funded MSU’s Jacob S. “Jack” Cristil endowed Scholarship.

PANELIST

Josh Sawyer
Senior Manager, Education Strategy, Microsoft

Josh Sawyer is a globally recognized industry leader and subject matter expert known for Education transformation and inspiring cultures of innovation at scale. Rooted in his personal philosophy ‘dream boldly, think deeply, and execute swiftly’; Josh currently leads Microsoft’s US Education and School Leader Transformation strategy focusing on Professional Learning, Training Partners, and the Microsoft Schools Program.

Prior to joining Microsoft, Josh led an innovation team driving instructional technology across one of the largest school districts in the US, as well as served as a global Educational consultant, master trainer, speaker, and content developer for affiliates worldwide.

Desmond Dickerson
Manager, Cognizant’s Center for the Future of Work

Desmond Dickerson is the manager of Cognizant’s Center for the Future of Work (CFoW). Leveraging his experience in digital transformation and marketing, Desmond consults clients on optimizing digital strategies that prioritize user experience and engagement. His research with the CFoW focuses on the human impact of business decisions related to technology development and deployment.

He is also a frequent blogger at www.futureofwork.com. Dickerson has an MBA (Data Analytics) from Georgia Institute of Technology and an undergraduate degree in marketing from Georgia State University.

PANELIST

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Senior Manager, Education Strategy, Microsoft

Josh Sawyer is a globally recognized industry leader and subject matter expert known for Education transformation and inspiring cultures of innovation at scale. Rooted in his personal philosophy ‘dream boldly, think deeply, and execute swiftly’; Josh currently leads Microsoft’s US Education and School Leader Transformation strategy focusing on Professional Learning, Training Partners, and the Microsoft Schools Program.

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Panelists continued
PANELIST
Janice Zdankus
vice president
Hewlett Packard Enterprise, Customer Experience and Quality

Janice Zdankus is vice president in Hewlett Packard Enterprise’s Customer Experience and Quality team where she is responsible for digital content experiences. She has held leadership roles in engineering, marketing, services, support, and quality for hybrid IT products and solutions.

Zdankus serves as the HPE lead executive partnering with the World Economic Forum on Food Systems and Ag innovations. As a passionate supporter of increasing the interest and representation of youth in the STEM fields, she co-founded Curated Pathways to Innovation, a nonprofit Etch startup utilizing AI and machine learning to personalize education pathways for the underrepresented. She serves on the Boards of NAWIT and ABET. The National Diversity Council named Zdankus a “Top 50 Woman in Tech” in 2018. She earned an MBA from Santa Clara University and holds bachelor’s degrees in computer science and industrial management from Purdue University, where she is also an Outstanding Computer Science alumna.

PANELIST
Scott Waller
President & CEO
Mississippi Economic Council

Scott Waller is president and CEO of the Mississippi Economic Council. He is instrumental in developing meaningful public policy initiatives for improving workforce development, education, economic development, transportation, and tax policy. He previously served as executive vice president/COO of MEC. Before joining MEC in 2006, he spent more than 20 years as a newspaper journalist.

A graduate of Mississippi State University, Waller serves on the State Workforce Investment Board and the executive board of the Andrew Jackson Council BSA. Nationally, Waller serves as the HPE lead executive partnering with the World Economic Forum on Food Systems and Ag innovations. He previously served as a distinguished member of the technical staff at Sprint, facilitating intra-department, technology path decision-making for executive business strategies at strategic planning venues, including M&A activities. As president and CEO of NetGames USA, he led the company through acquisition by Microsoft Corporation.

In 2019, he was named one of Mississippi’s 50 Most Influential Leaders, and the Mississippi Business Journal honored him as one of Mississippi’s top CEOs.

PANELIST
Craig Sparks
Chief Innovation Officer
C Spire

Craig Sparks brings more than 20 years of experience in telecommunications engineering. He currently leads technology and product development teams as chief innovation officer at C Spire, a leading telecommunications and technology services company with deep roots and a strong commitment to the southeastern region of the U.S. and its people. Sparks joined C Spire as VP of technology in 2016. He was recognized by Fierce Wireless as one of their “Executives to watch: 13 rising stars of wireless” in 2018.

He previously served as a distinguished member of the technical staff at Sprint, facilitating intra-department, technology path decision-making for executive business strategies at strategic planning venues, including M&A activities. As president and CEO of NetGames USA, he led the company through acquisition by Microsoft Corporation.

A graduate of radio frequency design and telecommunications programs at the University of Kansas, Craig holds bachelor’s and master’s degrees in electrical engineering.

For more details, visit datasummit.info
Technology Education Today for the Workforce of Tomorrow

Join this important panel discussion about preparing to educate our K-12 students and equip them with the skills needed to successfully enter the technology-driven workforce for tomorrow.

Camille Scales Young brings more than two decades of experience in state and federal government affairs to the office of Cornerstone Government Affairs in Jackson, Mississippi. Her efforts involve the state and federal legislative interests of clients such as institutions of higher learning, a major automotive manufacturer, associations that represent constituents in each county, and healthcare entities. She also provides significant support to clients in areas of public affairs and community relations.

She has been honored with the following accolades: Mississippi Business Journal’s Top 50 Business Women and Top 40 Under 40; Woman of Distinction by the Girl Scout Council of Middle Mississippi; and Alumnus of the Year by the Central Mississippi Chapter of the MSU Alumni Association. She is also a member of the BankFirst Board of Directors and the inaugural class of Top 50 Most Influential People in Mississippi. Lewis holds bachelor’s and master’s degrees from Mississippi State University.

With more than 23 years of technology experience, Carla Lewis serves as the chief technology officer for C Spire in which she is responsible for all aspects of IT operations, network operations, and customer operations. Under her leadership, C Spire has been named a top technology innovator by InformationWeek for three years and was the top-ranked telecommunications provider in InformationWeek’s Elite 100. Lewis was also named as one of Mississippi’s Top in Tech by the Mississippi Business Journal. In addition to CTO, she leads the workforce development portion of the C Spire Tech Movement where technology education is a primary focus.

Lewis is a member of the board of directors for the Base Camp Coding Academy, a nonprofit vocational education training program that delivers fast-paced, focused computer programming to under-advantaged youth in Mississippi, to support the technology needs of local and regional employers.

Allen S. Parrish is associate vice president for research and professor of computer science and engineering at Mississippi State University. Parrish previously served as professor of cyber science and founding chair of the department of Cyber Science at the United States Naval Academy, where he helped launch the cyber operations program.

Prior to the Navy, Parrish served 26 years as faculty at the University of Alabama in a variety of roles, including professor of computer science, associate vice president for research, and founding director of the Center for Advanced Public Safety. Throughout his career, Parrish has obtained nearly 200 funded projects, totaling approximately $100 million from many diverse state and federal sponsors.

Parrish has been published in refereed journals and has spoken on topics as diverse as data science, software engineering, transportation safety, and technology education. Parrish received a doctorate in computer and information science from Ohio State University.
Erin Lockett is the associate policy director for innovation at the Foundation for Excellence in Education (ExcelinEd). She is currently the policy lead for Course Access and partners on college acceleration, college and career pathways, and career and technical education. She is passionate about ensuring that students have the opportunities they need to be successful in college and career. Her work includes thought leadership, research, state policy analysis, and convenings. She has presented at the iNACOL Symposium, National College Access Network National Conference, National Alliance for Concurrent Enrollment Practices, and the State Policy Network, as well as testified in multiple states across the country.

Lockett earned a bachelor’s degree in Humanities and English from Florida State University and a master’s degree in public administration, with an emphasis on nonprofit management, from George Washington University’s Trachtenberg School for Public Policy and Public Administration.

Janice Zdankus is vice president in Hewlett Packard Enterprise’s Customer Experience and Quality team where she is responsible for digital content experiences. She has held leadership roles in engineering, marketing, services, support, and quality for hybrid IT products and solutions.

Zdankus serves as the HPE lead executive partnering with the World Economic Forum on Food Systems and Ag innovations. As a passionate supporter of increasing the interest and representation of youth in the STEM fields, she co-founded Curated Pathways to Innovation, a nonprofit Etch startup utilizing AI and machine learning to personalize education pathways for the underrepresented. She serves on the Boards of NCWIT and ABET. The National Diversity Council named Zdankus a “Top 50 Woman in Tech” in 2018. She earned an MBA from Santa Clara University and holds bachelor’s degrees in computer science and industrial management from Purdue University, where she is also an Outstanding Computer Science alumna.

Philip S. Poe is an associate professor in the Department of Communication at Mississippi State University where he teaches courses in media ethics, production, and writing. He is also responsible for coordinating the print and digital journalism concentration. His research, published in peer-reviewed journals like Media Watch, ETC: A Review of General Semantics, and Media and Religion, examines media representation of marginalized groups and online communities.

Poe serves as vice president elect of the Mississippi Communication Association. He earned bachelor’s and master’s degrees from the University of Houston and a doctoral degree in mass communications from Texas Tech University.

Explore how synthetic media such as deepfakes and social bots are influencing many consumers’ discussion or opinions of people, institutions, organizations, and even products.
With more than 25 years of industry experience, Martin Waxman is CMO of Spin Sucks and co-founder of three PR agencies. He is a digital communications strategist who conducts AI research and teaches digital marketing and social media. Waxman is also a LinkedIn Learning and Lynda.com author, a co-host of the Inside PR podcast, a past chair of PRSA Counselors Academy, and past president of CPRS Toronto.

He developed a certificate in digital strategy and communications management for the University of Toronto School of Continuing Studies and teaches several courses at the institution. He also teaches at McMaster University and Seneca College and regularly speaks at conferences across North America. Waxman holds a master’s degree in communications management from McMaster/Syracuse Universities. He has published two books of fiction and an eBook on multimedia storytelling.

Adam Boskovich is the CEO and co-founder of WowYow, a Visual AI company applying its advanced computer vision and technology to video and image content. The company’s proprietary Visual AI Technology automatically identifies and indexes new visual ad inventory from publisher video/image content, opening up new opportunities for brands to connect with their target consumers.

Chris Buetti is an engineer, data scientist, and entrepreneur with a keen interest in artificial intelligence and robotics. Additionally, he loves to explore anything related to sports analytics, automation, and startups. He is currently a big data engineer at the National Basketball Association where he works on automation within digital marketing. His favorite area of academia is teaching AI to seem as human and natural as possible, including many related projects in the social media space. Buetti’s work has been featured on Cheddar TV, Buzzfeed News, and Digital Information World.

Panelists: Bots and Deepfakes as Influencers in the Social Media Landscape

Panelist: Bots and Deepfakes as Influencers in the Social Media Landscape
Deploying Machine Learning in Common Devices to Bring Disruptive Products to Market

Despite popular belief, machine learning is capable of being deployed in not only large models but also tiny, resource-constrained devices. In this discussion, we talk about how machine learning can bring additional safety, efficiency, and performance to everyday devices like treadmills.

Chad Green
Lantern, LLC

Chad Green is an inventor, engineer, and entrepreneur. He currently serves as president and founder of two promising startups in Northern Virginia. Both companies are deploying machine vision and artificial intelligence solutions at the device level to bring disruptive products to market. Prior to his first startup, he was vice president of engineering for a defense contractor in Herndon, Virginia. There, he led the development of cutting-edge sensor projects for the Defense Advanced Research Projects Agency (DARPA). He is credited with the original optical sensor design for the Iron Curtain Active Protection System, designed to detect, classify, and defeat rocket-propelled grenades midflight. He also invented a breakthrough safety technology for the road-building industry and highway patrol. Chad has nearly 20 years of experience in technology development, manufacturing, and business development. He holds a bachelor's degree in electrical engineering and a master's degree in physics from the University of Utah.

Transforming the Global Energy Economy with Data

Our group of experts discuss how data science research will potentially transform the energy economy through data-driven tactics like increasing renewable energy or transporting with less energy.

Sumesh Arora
Mississippi Development Authority

Sumesh Arora has 28 years of industry experience, in the nonprofit and the public sectors, leading programs in energy technology commercialization, STEM education, and innovation-based entrepreneurship. He is the director of the Energy and Natural Resources Division (ENRD) at the Mississippi Development Authority. The division’s mission is to strengthen Mississippi’s energy economy by promoting its natural resources, energy workforce, security, and efficiency. Arora is also the co-inventor of a patented waste-to-energy process. He was appointed by U.S. Energy Secretary Rick Perry to a three-year term on the DOE State Energy Advisory Board and previously testified before the U.S. Senate in support of advanced biofuels. Arora has bachelor's and master's degrees in engineering from the University of Central Florida. He holds a doctorate in international development from the University of Southern Mississippi, where he currently serves as adjunct faculty member.
Amin Amirlatifi is a petroleum reservoir engineer with an extensive background in numerical simulation, geomechanics, and the application of computer science and data intelligence in the oil and gas industry. He has worked in a variety of engineering, research, and management roles at nationally and privately owned oil and gas companies. Amirlatifi is a faculty member in petroleum engineering in the Swalm School of Chemical Engineering at Mississippi State University.

His main research areas include application of quantum computing, big data analytics and artificial intelligence in the oil and gas industry, geomechanical analysis, CCUS, and synthetic photosynthesis. He holds Bachelor of Science and Master of Science degrees in petroleum reservoir engineering from the University of Petroleum Technology, a Master of Engineering in petroleum and chemical engineering from University of Calgary, and a doctorate in petroleum engineering from Missouri University of Science and Technology.

Cecil Brown serves as Mississippi’s central district public service commissioner. When he joined the governor’s staff 25 years ago, Brown quickly gained a reputation as someone who would give sound, honest advice.

He holds a master’s degree in accounting from the University of Texas, and his knowledge of his field has allowed him to evaluate intricate budgets and offer insight into the best routes that one can take. Because of his depth of knowledge and passion for Mississippi, Brown served seven years as chairman of the Joint Legislative Budget Committee during his 16 years as a state representative.

He has championed accountability measures and tougher standards for Mississippi schools and worked to do what is best for the people of Mississippi.

Michael S. Mazzola is the executive director of the Energy Production and Infrastructure Center (EPIC) at the University of North Carolina, Charlotte, and the Duke Energy distinguished chair in power engineering systems. Prior to these appointments, he was a professor of electrical and computer engineering at Mississippi State University and the Jack Hatcher chair for engineering entrepreneurship.

He served two years as the chief technology officer of SemiSouth Laboratories, a company he co-founded. In 2009, he was named associate director for advanced vehicle systems at the MSU Center for Advanced Vehicular Systems (CAVS). He received his doctorate from Old Dominion University and has been awarded 14 patents.

Hani Elshahawi is the Deepwater digitalization lead and formation testing and sampling principal technical expert at Shell, where he has spent the last 16 years. Elshahawi was previously GameChanger, serving as Deepwater technology advisor and capabilities manager, and led Shell’s Fluid Evaluation and Sampling Technologies (FEAST) center of excellence. Prior to Shell, he spent 15 years with Schlumberger in more than ten countries in Africa, Asia, and North America. During that time, he held various positions in interpretation, consulting, operations, marketing, and technology development. He holds several patents and has authored more than 150 technical publications. He was the 2009-2010 president of the SPWLA, recipient of multiple SPE and SPWLA awards, and a distinguished lecturer for both societies.
Roger Grimes is a 30-year computer security consultant, instructor, holder of dozens of computer certifications, and author of 10 books and more than 1,000 magazine articles on computer security. He is a data-driven defense evangelist for KnowBe4, the world’s largest security awareness training and simulated phishing platform.

Grimes has worked at some of the largest computer security companies, including Foundstone, McAfee, and Microsoft. He has consulted for hundreds of companies of all sizes around the globe. He specializes in host and network security, identity management, anti-malware, hackers, honeypots, public key infrastructure, cloud security, cryptography, policy, and technical writing. He has been featured in several media outlets including Newsweek. He has also been the weekly security columnist for InfoWorld and CSO since 2005.

Learn how quantum computers are breaking today’s crypto, when it’s likely to happen, and what you can do to start preparing for it today.

Craig Orgeron serves as the executive director of the Mississippi Department of Information Technology Services. He previously served as president of the National Association of State Chief Information Officers and currently serves on the executive committee of the Multi-State Information Sharing & Analysis Center.

Craig P. Orgeron holds a doctorate in public policy and administration from Mississippi State University and is a graduate of the Senator John C. Stennis Executive Development Institute, as well as Harvard University’s John F. Kennedy School of Government Executive Education Series called Cybersecurity: The Intersection of Policy and Technology.

Intelligent security that is fast, artificially intelligent, and integrates seamlessly and automatically is now a mandatory standard. Join this panel as they reveal methods and strategies on how to bring intelligent security to big data.
Wesley McGrew serves as the director of cyber operations for HORNE Cyber. Known for his work in offensive information security and cyber operations, McGrew specializes in penetration testing, network vulnerability analysis, exploit development, reverse engineering of malicious software, and network traffic analysis. McGrew earned his doctorate in computer science at Mississippi State University, with a research focus in vulnerability analysis of SCADA HMI systems used in national critical infrastructure.

Robert Jackson is the vice president of operations for SphereCom Enterprises Inc., which specializes in cybersecurity and telecommunications engineering, security documentation development and security compliance support for advanced technologies such as cloud computing, radio frequency identification, mobile and ad hoc wireless communications, and robotics. He has developed a wide range of system security, communications security, information security, and disaster recovery programs for international, U.S. government, and commercial clients.

Jackson is a Certified Information Security Manager (CISM) with 40 years of telecommunications and security engineering experience and has been listed in Who’s Who in the West and Who’s Who in the Computer Industry. He has served as a panelist and moderator at various conferences that focused on information security, cloud computing forensics, Internet of Things (IoT), Everything-as-a-Service (XaaS), and other emerging distributed computing delivery models.

Keith Tresh is a retired Army colonel, a veteran C-level IT management professional, and an educator. He has more than 26 years of experience in cybersecurity and information technology. In October 2016, Tresh was appointed by Governor Jerry Brown as the commander of the California Cybersecurity Integration Center (Cal-CSIC) where he served until he retired in November 2018. He previously served as chief information security officer for Orange County, California, and as J6/chief information officer for the California National Guard. He also served in the Army for more than 33 years, including a combat tour in Iraq.

He holds a master’s degree in computer information systems from the University of Phoenix and a master’s degree in national security and strategic studies from the United States Army War College.

Jamie Ward is a cybersecurity solutions manager with the Center for Internet Security (CIS) who has a passion for protecting state, local, and tribal (SLTT) governments from cyberattack. CIS is a mission-based 501(c)3 nonprofit cybersecurity organization that is tasked with providing cybersecurity support and services to SLTTs. With 20 years of information technology experience, this allows him to help our government officials deal with the present and future of cyber threats.

He has also been serving as mayor of Mayfield, New York for the past nine years. He has a thorough knowledge of federal, state and local government, which allows both of his worlds to benefit from his insight.
Wearable Sensors in Athletics: The Data Ecosystem in Sports

Learn how sports technology and wearables help to solve problems and how the cultural shift of bringing in a data scientist has caused significant change—both good and bad—in the ever-changing sports ecosystem.

Josh Harkins
Mississippi State University

Josh Harkins has been in the Mississippi Senate since 2012 and represents District 20, which includes Rankin County. He is chairman of the Universities and Colleges Committee and vice chair of the Energy Committee. He is also on the Business and Financial Institutions, Finance, Highways and Transportation, Public Health and Welfare, Public Property, Rules, and Tourism Committees. He is a real estate broker and a graduate of Mississippi State University. Additionally, he is a member of the Flowood Chamber of Commerce, ACI Real Estate, and Home Builders Association. Josh and his wife, Andrea have two daughters and reside in Flowood.

Kristi M. Fondren is a professor and chair of the department of sociology and anthropology at Marshall University in Huntington, West Virginia. She has spent many years researching topics in the areas of sports, leisure, and recreation. Her recent book, Walking on the Wild Side: Long-Distance Hiking on the Appalachian Trail, makes unique contributions through its in-depth examination of the long-distance hiking community.

Kristi M. Fondren
Marshall University

As a graduate student at Mississippi State University, Fondren developed an interest in athletic recruiting, more specifically negative recruiting and how recruiting practices intersect with the identity of educational institutions. In this line of research, she examined the importance of race, class, and Southern culture through the lens of college football recruiting at two prominent universities in Mississippi. Her works have been published in a variety of outlets such as Journal of Issues in Intercollegiate Athletics, Leisure Studies, and Gender Issues.

Aaron Duvall
Mississippi State University

Aaron Duvall is the strength and conditioning coach for the women’s soccer team, men’s and women’s golf teams, and all track and field groups at Mississippi State University. He has experience in both strength and conditioning as well as applied sports science. Prior to joining MSU in July 2018, Duvall worked with the performance staffs at the University of Texas at Austin, LSU-Shreveport, Cal State Fullerton, and Clemson University.

Duvall earned a master’s degree in sports science and received strength and conditioning coach certification from the Collegiate Strength and Conditioning Coaches Association (SCCC). He is also an advanced sports performance specialist through USA Weightlifting (USAW-2). In his current role, he also collaborates with athletic trainers, nutritionists, sports psychologists, and coaches to help advance the performance of all Olympic student-athletes at MSU.
Shannon Singletary is senior associate athletics director of health and sports performance at the University of Mississippi. He is the liaison between the medical community and Ole Miss Athletics and the sports administrator for Ole Miss track and field and cross country. He previously served as staff physical therapist and supervisor of sports medicine at the University of Mississippi Medical Center (UMMC) and as the director of rehabilitation and lead physical therapist for Nissan. Singletary earned a bachelor’s degree in exercise science from Ole Miss and bachelor’s and doctoral degrees in physical therapy from UMMC. Singletary holds licenses in physical therapy and athletic training from the Mississippi State Board of Health. He is also certified by the National Athletic Training Association and has a specialist certification from the National Strength and Conditioning Association. He has conducted numerous presentations, published multiple articles, and served as board member/chair of the Mississippi Physical Therapy Association.

Tony Luczak is a sports scientist and Ph.D. candidate in human factors engineering at Mississippi State University. A golf instructor for 25 years, Tony’s students have won on the PGA, Senior PGA Tour, and the 2014 World Long Drive Championships. Frustrated with recurring back injuries during his playing career and then his son’s non-contact lateral sprains while on the Mississippi State men’s basketball team, Tony went back to school and earned a Master of Science in exercise science. Focused on how technology can be used to improve performance and mitigate injuries, Tony began to design wearable technology and utilize data to optimize industrial, military, and sport athletes. Fueling his business interests, Tony was the entrepreneurial team leader during the NSF Innovation Corps commercialization program, investigating the use of wearable technology in collegiate and professional sports.

Ray Coleman serves as the director of external affairs at the Mississippi Emergency Management Agency (MEMA). Primarily, he works with the public, media, state legislators, and Congress members on emergency management issues. Since joining MEMA, he has worked six federally declared disasters. He served ten years as a television anchor and reporter for ABC affiliate, 16 WAPT. Coleman won the Edward R. Murrow “Award for Excellence” in 2010 and received ten Associated Press awards. Other career highlights include covering the NCAA Men’s Basketball and Baseball Tournaments, NBA Playoffs, and NFL Playoffs, and NCAA Football Bowl Games. As a FEMA-certified advanced public information officer, Coleman provides media training to first responders statewide. He is a member of the National Emergency Management Association, the Mississippi Civil Defense and Emergency Management Association, and the Public Relations Association of Mississippi. Coleman earned a bachelor’s degree in mass communications from the University of Southern Mississippi.

Experts reveal the advantages and challenges of collecting and disseminating data to and from multiple sources, across many municipalities with varying laws and protocols, to enhance community resilience against extreme events.

TOPIC
Integrated Data for Community Resilience

Panelists: Wearable Sensors in Athletics: The Data Ecosystem in Sports

Shannon Singletary
University of Mississippi

Tony Luczak
Mississippi State University

Ray Coleman
Mississippi Emergency Management Agency

MODERATOR
Ray Coleman
Farshid Vahedifard is a CEE Advisory Board endowed professor and an associate professor in the department of civil and environmental engineering at Mississippi State University. He is also a research fellow with the National Strategic Planning & Analysis Research Center (NSPARC). He has more than 17 years of academic and industrial experience in civil and geotechnical engineering. Vahedifard has served as primary investigator in several research projects with a total funding of more than $4.5 million supported by NSF, DOE, DOD, and USACE, among others. His research efforts primarily encompass the areas of geotechnical engineering interfacing with extensive challenges of climate change, resilient infrastructure, and energy. He has authored more than 110 refereed articles in scholarly journals and conference proceedings. Related to the topic of this panel, he is currently leading a collaborative project sponsored by NSF called “Resilience of Geotechnical Infrastructure under a Changing Climate: Quantitative Assessment for Extreme Events.”

Alireza Ermagun serves as an assistant professor of transportation in the department of Civil and Environmental Engineering at Mississippi State University. He earned a doctorate in transportation systems engineering and received a master’s degree in road and transportation and an additional master’s degree in urban and regional planning at the University of Minnesota. A common theme for his research activities is to identify novel solutions, develop advanced methods, and introduce innovative theories to understand travel behavior and human aspects of sustainable and smart mobility more realistically. Ermagun’s innovative research has resulted in him receiving multiple awards including the 2018 Best Research on Innovation Award from the Transportation Research Board, the 2017 Tiebout Prize in Regional Science, and the 2016 John S. Adams Award. Ermagun is currently on the editorial board of Transport Findings. He has published more than 40 refereed articles in peer-reviewed journals and delivered more than 80 technical presentations.

Heath Patterson has been serving as an engineer and civil servant with the Mississippi Department of Transportation (MDOT) since 2002. A civil engineering graduate of Mississippi State University, Patterson served his first seven years at MDOT as a project engineer; he was responsible for overseeing various large enterprise construction projects. He then held the position of area construction engineer in which he served the central region of the state. After about a year as an assistant state local public agency (LPA) engineer, working with many local and county governments, he was appointed state maintenance engineer in 2013. During this tenure, he was also appointed as the emergency coordinating officer (ECO), representing the agency in all areas of disaster response and recovery.

Kathy Lester is a deputy chief of police for the Sacramento Police Department, overseeing specialized services including traffic, SWAT, air support, community outreach, homeless and mental health units, public safety IT, and transit. She previously served in the U.S. Army as a Russian interpreter and cryptanalyst. She later earned a bachelor’s degree in government and international relations at California State University, Sacramento. She is also a proud graduate of Mississippi State University, where she earned a master’s degree in Geosciences. She blends her education and role as a public safety executive to focus on improving community resilience and emergency response to natural disasters. She works closely with the Department of Homeland Security and recently led a team of public safety and elected officials to Washington, D.C., to discuss local government response to catastrophic incidents, wireless opt-out mandates, and crisis response with legislators.
Aundrea Self currently anchors WCBI News at 5 and 6 and hosts the daily talk show, "MidMorning with Aundrea," where she explores topics ranging from lifestyle to health to politics. She began her broadcasting career at WACR radio and continued working in radio for seven years. She joined WCBI-TV as a news producer in 1998 and eventually began reporting, which ultimately led to her seven-year run as co-anchor of "WCBI News Sunrise" and "Midday."

Self has won several Associated Press awards for her work. Outside of work, Aundrea spends time speaking at area churches, schools, and civic organizations. She is a member of the Community Advisory Board for Baptist Memorial Hospital-Golden Triangle and serves on the board of the Richard E. Holmes II Memorial Foundation. She is an active member of the Starkville chapter of Alpha Kappa Alpha Sorority, Inc.

Barton Moffatt is an associate professor in the department of philosophy and religion at Mississippi State University. A philosopher of science by training, Moffatt's research focuses on ethical and philosophical aspects of science and technology. His peer-reviewed work examines ethical and conceptual issues in the biomedical and forensic sciences and the nature of scientific authorship. He brings wide experience in interpreting the ethical aspects of the biosciences.

His current research project looks to articulate the philosophical underpinnings of forensic sciences, particularly focusing on the intersection of epistemic, institutional, and ethical practices in the forensic realm. The use of genetic genealogy to catch criminals is also a particular point of interest for Moffatt.

Daniel G. Peterson is the director of Mississippi State University’s Institute for Genomics, Biocomputing & Biotechnology (IGBB) and a professor in the department of plant and soil sciences. His research is focused on understanding the biomolecular interactions underlying the diversity, value, and sustainability of species of agricultural, medical, bioenergy, and/or ecological importance. He has played key roles in several large genome projects including those targeting sorghum, numerous cotton species and cotton relatives, crocodilians, and aquaculture fish.

Peterson has twice received the Mississippi Agricultural and Forestry Experiment Station Grantsmanship Award, and he was awarded the Ralph E. Powe Research Excellence Award, the highest research honor bestowed by the university. He is an associate editor for Gene, Plant Gene, and Trees: Structure & Function and a longtime member of the editorial board of Analytical Biochemistry.
Trae Sims is an attorney at Taggart, Rimes, & Graham. His extensive legal career has included more than a decade of complex litigation practice, several years of service as prosecutor and assistant city attorney to the city of Madison, Mississippi, and most recently a stint as general counsel to the Mississippi Department of Public Safety, the state’s law enforcement agency. He has worked primarily in the area of health care regulatory compliance-based litigation, handling hundreds of cases, many through verdict and appeal, including reported appellate decisions favorable to his clients. He also achieved a 100% success rate in disputed arbitration challenges. As a prosecutor, Trae has handled thousands of criminal cases, both misdemeanor and felony.

He received a bachelor’s degree in political science and German language at the University of Southern Mississippi and a law degree from Mississippi College School of Law.

Steve Lockless is an advisor for Othram, Inc., the first technology company to apply all the power of modern sequencing and genomics in a forensics environment. Lockless earned his Ph.D. in Biophysics at UT Southwestern Medical Center in Dallas creating software to analyze large sequence data sets. He then completed post-doctoral work in Neurobiology and Chemistry at The Rockefeller University in New York City. In 2009, Lockless started his own NIH-funded research program to study microbial ion channels in the Department of Biology at Texas A&M University, where he is an Associate Professor. He is also interested in how DNA information can be used to establish ancestry, determine familial relationships, predict physical traits and identify individuals.

Chris Howard serves as executive director of the Mississippi Department of Rehabilitation Services (MDRS), a position he has held since 2015. Chris has been with the agency since 2000 and has held the following roles: director of internal audit, director of financial management, and deputy executive director. Prior to his career at MDRS, Howard served as a state auditor with the Office of the State Auditor for eight years.

A member of the Mississippi Public Employers’ Retirement System (PERS) Board and the Mississippi ABLE Board, Howard is dedicated to helping individuals with disabilities to establish tax-advantaged savings and investments.

He holds a bachelor’s degree in accounting from Mississippi State University.
Josh Woodward currently serves as director of business development for the Mississippi Department of Rehabilitation Services (MDRS) in Madison, Mississippi. Prior to joining MDRS, Woodward served 12 years in the sales field in two different sectors, most recently financial advisory. He began his career in the industrial equipment sales field. He holds a bachelor's degree in marketing and a master's degree in business administration from Mississippi College. He also teaches Sunday school and coaches youth basketball at Madison United Methodist Church.

Steven Morris is the senior human resources manager for Sephora's Distribution Center located in Olive Branch, Mississippi. He has successfully partnered with Mississippi Department of Rehabilitation Services and is aimed at employing individuals with disabilities. Sephora is learning that the business case is strong in providing transitional training as an alternative to traditional interviews. At their Olive Branch, Mississippi, facility, 20% of the workforce has a disability. They are more dependable, more productive, safer, and are less likely to leave the company than their non-disabled coworkers. Steve holds a bachelor's degree in business from the University of Central Oklahoma, and has experience in the aerospace, energy, manufacturing, and people service industries.

William R. Sutton is currently principal and post-graduate transition director at New Summit School, a special purpose school in Jackson, Mississippi. He previously served as assistant principal and principal in the Rankin County School District until he retired from public education. His educational career began as a special education teacher and transitioned to a gifted and advanced placement instructor. Prior to working in education, Sutton served as a community bank president in the financial service industry and a youth minister at a local presbyterian church.

He holds bachelor's degrees in psychology and political science from the University of Pittsburgh, a specialist degree in educational leadership from Mississippi State University, and a doctor of jurisprudence from the Mississippi College School of Law. He also completed studies at Reformed Theological School.

Heath G. Ferguson currently serves as director of pastoral care and faith relations for Baptist Memorial Health Care in central Mississippi. He is responsible for patient, family, and staff ministry within Mississippi Baptist Medical Center, Baptist Memorial Attala, Baptist Memorial Leake, and Baptist Memorial Yazoo. He also articulates the faith and mission of these hospitals through relationship building and supporting central Mississippi communities and congregations.

A board-certified chaplain through the College of Pastoral Supervision and Psychotherapy, Ferguson is licensed and ordained by the Southern Baptist Convention. He is a graduate of New Orleans Baptist Theological Seminary and holds a master’s degree in marriage and family therapy from Mississippi College. Ferguson believes in sharing Christ through compassion and care, and he loves the relationships he has developed throughout Baptist.
NSPARC is expanding the boundaries of data science to create knowledge and innovations that drive human progress. Our expertise includes data analytics, predictive analytics, machine learning, artificial intelligence, system of systems, data governance, cybersecurity, cloud technology, and high-performance computing. Known primarily for our work with smart government and more than 50 data innovations, NSPARC has achieved national prominence in the data science field.

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Mississippi State University is a public, land-grant university whose mission is to provide access and opportunity to students from all sectors of the state’s diverse population, as well as from other states and countries, and to offer excellent programs of teaching, research, and service. The university embraces its role as a major contributor to the economic development of the state through targeted research and the transfer of ideas and technology to the public, supported by faculty and staff relationships with industry, community organizations, and government entities. Mississippi State is committed to its tradition of instilling among its students and alumni ideals of diversity, citizenship, leadership, and service.

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