

Bios

Keynote speakers

Emily Griese, PhD, Chief Operating Officer, Sanford Health Plan, Sioux Falls, SD



Emily Griese is responsible for providing leadership and oversight for all operational areas at Sanford Health Plan, focusing on financial strength and efficiencies while ensuring the highest quality member experience and outcomes. She further leads Sanford Health Plan towards advancing its mission in value-based care integration, working closely with the Sanford Healthcare Delivery system. Dr. Griese has nearly 15 years of experience in community-based work and population health. Before joining Sanford Health Plan in January of 2020, she worked with Sanford Health as a leader in population health working with executive leadership in setting a system strategy for the transition to value-based care. Prior to that role, she led the

Sanford Data Collaborative as well as a NIH funded research lab focused on rural and tribal health. She currently holds appointments as an Assistant Scientist at Sanford Research and an Assistant Professor at the University of South Dakota, Sanford School of Medicine. She received her PhD from the University of Nebraska-Lincoln and completed her postdoctoral fellowship in population health at Sanford Health.

Ryan Nichols, Data Science and Analytics Advisor, TransUnion

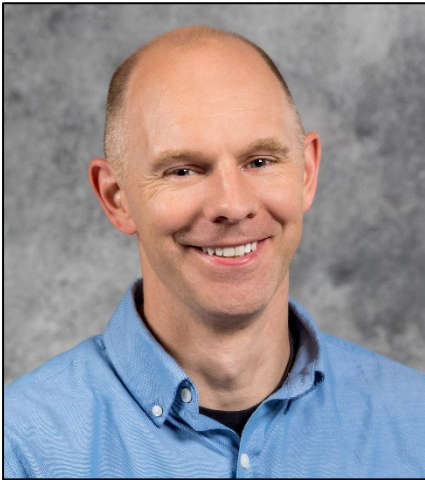


Ryan Nichols is a Data Science and Analytics Advisor for TransUnion. He serves in a cross-functional advisory role where he focuses on scale up and integration efforts across Mortgage, Tenant Screening and Auto Finance.

Mr. Nichols joined TransUnion over eight years ago and served as a key data scientist supporting our Tenant Screening business located in the Denver Tech Center (DTC). During the first seven years with TransUnion Rental Screening Solutions (TURSS), he helped conceptualize and invent Resident Vision, our leading multifamily business intelligence product. Before joining TransUnion, Ryan was employed as a Senior Analyst for Staples, the leading retailer of office supplies and products. Ryan earned a

Bachelor's degree in Economics from Mississippi State University and a Master's degree in Economics from Colorado State University.

Invited Speakers



Travis Burgers Scientist/Engineer – Raven Industries

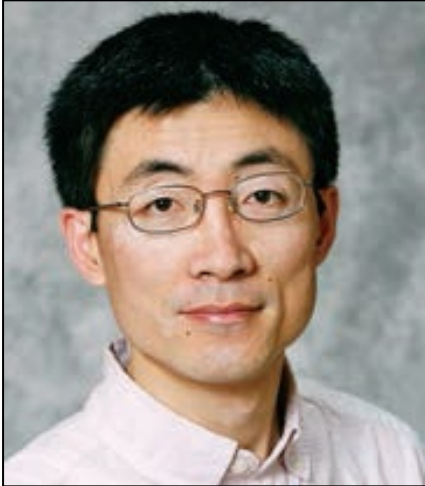
Travis Burgers enjoys a well-designed experiment, digging through data and good scientific communication. His passion for experimentation and data blossomed during his PhD research with medical devices and bones at the University of Wisconsin-Madison. Travis worked in medical research and medical devices for over a decade and among his accomplishments are two Philips Healthcare North America awards: for Innovation and for Excellence.

Travis is currently applying his interest in research to precision agriculture as a scientist/engineer in the Data Analytics team at Raven Industries, where he uses data in product development and system analysis to solve great challenges. There he has several patents and wrote a paper which demonstrated Raven's automatic boom leveling system outperforms the competition. Travis also mentors graduate students to design experiments and dig through data in mechanical and biomedical engineering at South Dakota State University and the University of South Dakota.



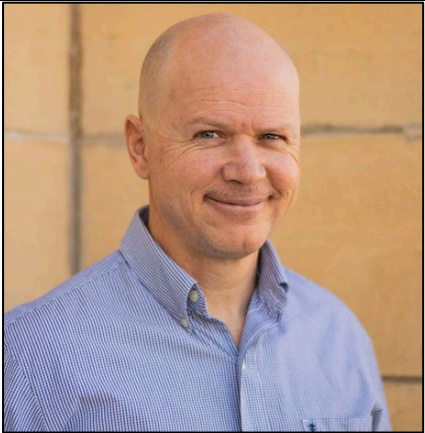
Suvobrata Chakravarty – Associate Professor, SDSU

Dr. Suvobrata Chakravarty is an associate professor in the Department of Chemistry and Biochemistry. His research uses both computational and experimental techniques to study mutations in proteins and their structural and functional consequences. After earning his Bachelor of Science degree from Bidhan Chandra Krishi Vishwavidyalaya, Dr. Chakravarty conducted graduate studies in the Indian Institute of Science. His PhD research focused on the computational studies on protein stability. Based on the mining of massive public data, Dr. Chakravarty's recent research contributed significantly to our understanding of protein structures, protein-protein, and protein-DNA interactions.



Xijin Ge – Professor, SDSU

Xijin Ge is a professor at SDSU Department of Mathematics and Statistics. He enjoys teaching data science through a case-study based approach. He also teaches bioinformatics classes to undergraduate and graduate students. Supported by major awards (R01s) from the NIH, his research team developed two popular Shiny apps (ShinyGO and iDEP) for analyzing genomic data through intuitive, graphical interfaces. In addition to collaborations with many biologists on a variety of topics, Dr. Ge's group also independently conducts meta-analysis of public genomics data to understand complex biological processes such as embryo development.



Randy Hoover – Professor, South Dakota School of Mines

Dr. Randy Hoover is a Professor within the Department of Computer Science & Engineering at SD Mines where he directs the Mines Machine Learning and Intelligent Systems Lab (MMLIS - L) within the CSE department. He received his Bachelor's degree in Electrical Engineering and Master's degree in Measurement & Control Engineering from Idaho State University in 2002 and 2005, respectively under the supervision of Dr. Subbaram Naidu. He received the Ph.D. degree in Electrical Engineering from Colorado State University in 2009 under the supervision of Dr. Anthony A. Maciejewski. His primary research interests revolve around machine learning, data analysis, and intelligent systems. His lab is currently working at the intersection of multilinear subspace learning, dynamic graph theory, and time-series forecasting.



Edward Krueger – Vice President, Risk Analytics & data Science, Channel Partners

Ed has been with Channel since November 2018 and in his current role he leads a team specializing in leveraging advanced data science techniques to draw out actionable insights from data. Prior to Channel, he worked in the subprime consumer credit and health insurance industries where he built models, developed and measured effectiveness of new strategies throughout the customer lifecycle, and optimized critical business decisions. His work in subprime consumer credit includes Bluestem Brands and Capital Services. He received his MBA from the University of South Dakota and his MS in Statistics from South Dakota State University.



Fitsum Mekuria - Founder - Dynamics 365 Software Architect

Fitsum is an Ethiopian-American entrepreneur, software engineer, data scientist, founder, and co-founder of two thriving technology companies. Currently, Fitsum serves as CEO of Fit Solutions Corp and CTO of Black Meta Agency & Phlete. In addition to her professional career, she is passionate about her community. She engages in several voluntary services such as mentorship of students from middle school to college levels, community giving back services, sponsorships, and community outreach, especially in support of elderly people, associations, and foundations.



Danica Ommen – Assistant professor, Iowa State University

Dr. Danica Ommen is currently an Assistant Professor in the Department of Statistics at Iowa State University where she collaborates with the NIST-funded Center for Statistics and Applications in Forensic Evidence (CSAFE) Center of Excellence. In 2017, she received her Ph.D. in Computational Science and Statistics from South Dakota State University. Her Ph.D. research was focused on finding statistically rigorous approximations to the value of evidence for use in the forensic identification of source problems. She previously received her B.S. in Mathematics in 2012 and her M.S. in Mathematics with an emphasis in Statistics in 2014, also from South Dakota State University. Prior to graduating, she participated in the ORISE Visiting Scientist Program with the Counterterrorism and Forensic Science Research Unit at the FBI Laboratory where she learned about the science behind trace element analysis and analysis of impression and pattern evidence. This program furthered her interest in the statistical analysis of trace elements from materials such as copper wire and aluminum powder, as well as the statistical analysis of handwriting. Dr. Ommen also served as a visiting researcher with the statistics group at the Netherlands Forensic Institute in 2016 where she worked to advance her knowledge of the relationship between the different statistical paradigms for forensic evidence interpretation. She has presented her research work at many national and international conferences and is the first recipient of the Stephen E. Fienberg CSAFE Young Investigator Award.



Paige Pennock -- Business Analyst I, Premiere Bankcard

Paige Pennock graduated from the University of South Dakota with a Bachelor of Science degree in Mathematics. She is now a Business Analyst I for Premier Bankcard in Sioux Falls. At Premier, she is on the speech analytics team.



Michael Puthawala – Assistant Professor, SDSU

Michael Puthawala is the CAPITAL Services Scholar in Artificial Intelligence and Machine Learning Assistant Professor. He is an applied mathematician working in the field of Machine Learning, with an emphasis on Mathematical Machine Learning, especially Manifold Learning, Topological/Geometric Learning, and Universality. He also has interests in more classical math/applied math topics, for example Inverse Problems, Scientific Computing, and Optimal Transport.



Kyle Putnam – Principal Software Engineer, Query.AI

Kyle is a Principal Software Engineer at Query.AI, where he is leading the development of a federated search backend. With experience in healthcare, financial services, and cybersecurity, Kyle enjoys applying theoretical knowledge and academic research to solve difficult problems. His achievements include building large-scale recommender systems and financial data pipelines, an instrumenting compiler to measure PL/pgSQL code coverage, and a high-performance fuzzy string matching algorithm to check financial sanctions lists.



Valerie Reed - Managing Analytic Consultant, Premier Bankcard

Dr. Valerie Reed earned her PhD in Computational Science and Statistics from South Dakota State University in 2017. Prior to her PhD studies, she worked at Capital Services as a Data Scientist. After graduating with her PhD she joined Sanford Research as a Biostatistician until late 2021. At that point she joined Premier Bankcard as an Analytic Consultant in their speech analytics team. Valerie currently leads PREMIER's speech analytics team in developing new strategies to increase company efficiency and improve customer experience, combining natural language processing techniques with traditional statistical and mathematical methods to approach new and existing problems, and implementing advanced analytical methods to identify underlying trends.



KC Santosh – Chair and Professor, USD

Prof. KC Santosh is the Chair of the Department of Computer Science at the University of South Dakota. Prior to that, he worked as a research fellow at the National Institutes of Health. He also served as a research scientist at the INRIA Nancy Grand Est Research Centre (France), where he received his PhD in Computer Science - Artificial Intelligence. With \$2M+ funding (sources: SDCRGP, State of SD, DOE, NSF, and AOARD) and more than 220 peer-reviewed research articles plus 9 authored books, Prof. Santosh has demonstrated his expertise in artificial intelligence, machine learning, computer vision, data mining, and big data. He serves multiple prestigious journals as an academic editor (PeerJ Computer Science) and an associate editor (e.g., IEEE Transactions on AI, IEEE Access, and Int. J of Machine Learning & Cybernetics). To name a few, he is the proud recipient of the Cutler Award for Teaching and Research Excellence (USD, 2021), the President's Research Excellence Award (USD, 2019) and the Ignite Award from the U.S. Department of Health & Human Services (HHS, 2014). Prof. Santosh completed leadership and training program for Deans/Chairs (organized by the Councils of Colleges of Arts & Sciences (U.S., 21)) and PELI - President's Executive Leadership Institute (USD, 21). Prof. Santosh is highly motivated/interested in academic leadership. More info. <https://kc-santosh.org>.



Christopher Saunders – Professor, South Dakota State University

Dr. Christopher Saunders is a Professor of Statistics at the SDSU. Dr. Saunders has more than 15 years of experience in dealing with complex evidence forms in support of the FBI and the broader Intelligence Community. Dr. Saunders is also currently involved in a number of NIJ funded research projects related to the interpretation of forensic evidence.



Dhiraj Sharan – Founder and Chief Scientist, Query.AI

Dhiraj is the founder and chief scientist at Query.AI. Query.AI is a cloud-native federated search solution for cybersecurity teams. Dhiraj has been a serial entrepreneur and technology executive with more than 20 years of experience. He built successful enterprise products at companies like Novell, ArcSight, HPE, PetaSecure, Niara and Aruba. Dhiraj is a prolific innovator, holding more than 10 patents in cybersecurity and data analytics. He earned his B.Tech CS from IIT (BHU, India) and Certificate in Management from Harvard University. In his personal life, Dhiraj is a family man and enjoys recreational sports.



Sebastian Sowada – Sr. Manager Data Science - Channel

Sebastian joined Channel in September of 2022 as the Sr. Manager Data Science specializing in providing business value through advanced analytics. In this role he leads a team responsible for strategic business analytics, reporting & dashboarding, and data science as well as ad hoc requests. Prior to Channel, Sebastian worked at Bluestem Brands supporting compliance and legal objectives leveraging modern data science techniques. Sebastian was the Research Fellow at CAPITAL Card Services while obtaining his M.S. in Statistics from South Dakota State University.



Eric Stratman – Director of Data Science and Machine Learning, ValidiFI

Eric received a master’s degree in Data Science from South Dakota State University in 2018. After graduating, he spent multiple years consulting in the field of data science and analytics for financial and e-commerce organizations. Eric would help design and build cloud infrastructure capable of deploying machine learning solutions. These machine learning solutions would help guide organizations into making better business decisions to transform their business. Eric is now the Director of Data Science & Machine Learning at ValidiFI. While at ValidiFI, Eric has developed the current fraud data solution to help customers mitigate fraud and risk. He has also help design and test the current payment instrument risk model that scores and segments loan applicants by risk.



Priya Swaminathan – Clinical Bioinformatics Analyst, Avera Cancer Institute

Padmapriya “Priya” Swaminathan is a Clinical Bioinformatics Analyst with the Genomics Oncology research team led by Dr. Tobias Meissner at the Avera Cancer Institute Center for Precision Oncology. She specializes in transcriptomics, genomic pathway analysis and visualization. She uses her expertise to visualize and associate cancer pathways enriched in specific patient samples in N-of-1 setting and thus helps the goal of developing personalized cancer treatments for each patient. Priya obtained her Master’s degree in Statistics with bioinformatics specialization from South Dakota State University in 2014. She worked as a bioinformatics research associate in the same university until 2019. She performed differential gene expression analysis of various datasets and helped uncover potential mechanisms associated with plant survival under extreme environments and mouse macrophage cell differentiation. In her current role, she also supports development and testing of Clinical Trial App, setting up automated workflow for patient data analysis to find the tumor tissue of origin and works in a research collaboration project related to gastric cancer. She would like to develop research interests in machine learning and contribute to novel solutions in the field of Precision Medicine.



Larry Tang – Professor, University of Central Florida

Larry Tang is a statistician specializing in statistical methodology and collaborative research. His current methodological research areas include statistical methods in forensics, diagnostic medicine, group sequential designs and substance abuse research and criminology. He received his Ph.D. in Statistics from Southern Methodist University in 2005. He did postdoctoral training in the Department of Biostatistics at University of Washington. His research is currently supported by National Institute of Justice and National Institutes of Health.



Landon Thomson – Channel Partners

Landon has been at Channel since December of 2020 as the Sr. Manager of Data Science specializing in bringing modern data science techniques and tools to deliver actionable insights. In this role he leads a team responsible for model development, strategic analytics, data engineering as well as recurring dashboards/reporting. Prior to Channel, Landon worked at UnitedHealthcare supporting their consumer marketing efforts leveraging big data technologies to deliver advanced analytics. Landon was the Research Fellow at CAPITAL Card Services while obtaining his M.S. in Statistics from South Dakota State University.



Jeremy Werner – Principal Data Scientist, Allstate

Jeremy is a Principal Data Scientist at Allstate with over 7 years of experience building various types of predictive models and implementing a wide variety of value-generating data science projects. He currently leads a data science team that builds and curates insights derived from aerial images of homes. Jeremy completed his undergraduate education at South Dakota State University and graduate education at the University of California, Davis.

Workshop instructors



David Zeng – Associate Professor, DSU

Dr. David Zeng is assistant professor/Director of the Center for Business Analytics Research (CBAR) of Information Systems at Dakota State University. He teaches graduate courses in the Master of Science in Data Science Program jointly offered by DSU and SDSU. The courses he teaches include Predictive Analytics for Decision Making, Programming for Data Analytics (Python), Deep Learning, and BI & Visualization. His research focuses on Economics of IT-enabled services, application of Deep Learning (transfer learning) in healthcare, and generative neural networks in contests and games. His papers have been published in top peer-reviewed journals and awarded as best papers in conferences. David received his PhD in Information Systems from University of California, Irvine. He got his MS in Computer Science from California State University, Long Beach.



Fitsum Mekuria - Founder - Dynamics 365 Software Architect

Fitsum is an Ethiopian-American entrepreneur, software engineer, data scientist, founder, and co-founder of two thriving technology companies. Currently, Fitsum serves as CEO of Fit Solutions Corp and CTO of Black Meta Agency & Phlete. In addition to her professional career, she is passionate about her community. She engages in several voluntary services such as mentorship of students from middle school to college levels, community giving back services, sponsorships, and community outreach, especially in support of elderly people, associations, and foundations.



Seth Friesz - Graduate Student, SDSU

Seth Friesz is a 2022 graduate of South Dakota State University with Bachelor's degrees in both Mathematics and Data Science. Currently, Seth is enrolled in the Mathematics and Statistics Master's program here at South Dakota State University. A driving force of why Seth enjoys learning about Mathematics and Statistics is that he believes those two studies can be interpreted as the official language of the Universe. Seth's school related hobbies include statistical programming as well as various Machine Learning topics, while non-career hobbies include sports, hiking, and spending time with the people most important.