

# 2020 SDSU Data Science Symposium Schedule

Monday, February 10, 2020			
Time	Pasque Room (255)	Dakota Room A/C (250)	Pheasant Room
12:30-5:00 p.m.	Check-in/Registration, Prairie Lounge		
1:00-5:00 p.m.	<b>WORKSHOP I</b> <i>Data Visualization</i> Dr. Xijin Ge	<b>WORKSHOP II</b> <i>Web Crawling</i> Peter Clausen	<b>WORKSHOP III</b> <i>R Library Creation Fundamentals</i> Riaz Khan
1:00-5:00 p.m.	Job Fair/Recruiting   Exhibitors, Campanile Room & Hobo Day Gallery A&B		
	Banquet, Performing Arts Center		
6:00-6:30 p.m.	Social Time (cash bar)		
6:30-8:00 p.m.	Dinner		
7:15-7:30 p.m.	Welcome, Dr. Bruce Berdanier, Dean of the Jerome J. Lohr College of Engineering		
7:30-8:30 p.m.	Panel Discussion: <i>Perspectives on Data Science in Organizations</i> , Charles Henderson, Capital Services; Valarie Bares, Sanford Research; Dhiraj Sharan, Query AI		

Tuesday, February 11, 2020				
Time	Pasque Room (255)	Pheasant Room A/B (253)	Dakota Room A/C (250)	Campanile & Hobo Day Gallery (A&B)
7:30 a.m.-noon	Check-in/Luggage Check, Volstorff Lounge			
7:45-8:20 a.m.	Breakfast, Volstorff B			
8:20-8:30 a.m.	Opening Session: <i>Welcome and Introduction</i> , Dr. Kurt Cogswell, Department Head, Volstorff B			
8:30-9:15 a.m.	Keynote: <i>Machine Learning and the Evaluation of Forensic Evidence</i> , Dr. Alicia Carriquiry, Volstorff B			
9:30-10:30 a.m.	<b>SESSION 1   Tools</b> Chair: Tobey Eich  <b>SAS Viya Tour</b> Melodie Rush, SAS Institute	<b>SESSION 2   Opportunities for Improving Health through Big Data &amp; Data Science</b> Chair: Dr. Arielle Selya, Sanford  <b>Data Science Infrastructure in the Cloud for Sanford Imagenetics</b> Murat Sincan, Sanford Research  <b>Data-Driven Healthcare: The Sanford Data Collaborative</b> Arielle Selya, Sanford Research	<b>SESSION 3   Precision Agriculture</b> Chair: Paul May, SDSU  <b>Multi-Resolution Approximations for Precision Agriculture</b> Paul May, SDSU  <b>Towards Deep Learning for Weed Detection: Deep Convolutional Neural Networks Architecture for Plant Seedling Classification</b> Martinson Ofori, Dakota State  <b>Imputing Data Without Replication</b> Jixiang Wu, SDSU	<b>SESSION 4   Advances in Probabilistic Modeling for Machine Learning</b> Chair: Igor Melnykov, Minnesota-Duluth  <b>Semiparametric Imputation Using Conditional Gaussian Mixture Models</b> Danhyang Lee, University of Alabama  <b>On Finite Mixture Modeling of Change-Point Processes</b> Yana Melnykov, University of Alabama  <b>An Approach to Initializing the EM Algorithm in Gaussian Mixtures with an Unknown Number of Components</b> Igor Melnykov, Minnesota-Duluth  <b>Gaussian Mixture Modeling and Model-Based Clustering Under Measurement Inconsistency</b> Rong Zheng, Western Illinois University
10:30-11:00 a.m.	Networking Break   Exhibitors, Volstorff B			
11:00 a.m.-noon	<b>SESSION 1   Tools</b> Chair: Tobey Eich  <b>SAS Viya tour</b> Melodie Rush, SAS Institute	<b>SESSION 2   Opportunities for Improving Health through Big Data &amp; Data Science</b> Chair: Arielle Selya, Sanford Research  <b>Propensity score methods for reducing bias in observational studies: An example from the PRAMS Study</b> Sooyong Kim, Sanford Research  <b>Floor Discussion</b> Arielle Selya, Sanford Research	<b>SESSION 5   Natural Language Processing</b> Chair: Sayeed Sajal, Minot State University  <b>Large-Window Techniques for Geospatial Raster Data</b> Anne Denton, North Dakota State  <b>Simple Introduction to Natural Language Processing and Its Clinical Applications in the Era of Artificial Intelligence</b> Yanshan Wang, Mayo Clinic	<b>SESSION 6   Nonparametric Methods for Data Science</b> Chair: Danica Ommen, Iowa State  <b>Some of These Things is Not Like the Others: Visual Statistics and Testing in Statistical Groups</b> Susan Vanderplas, Nebraska-Lincoln  <b>Asymptotically Distribution-Free Change-Point Detection for Non-Euclidean &amp; Multivariate Data</b> Lyanna Chu, Iowa State  <b>The Development of Pairwise Sample Comparison Methods of Particle Micromorphometry of AL Powders for Nearest Neighbor Classifiers</b> Cami Fuglsby, SDSU
noon-1:00 p.m.	Lunch, Volstorff B			
1:00-2:00 p.m.	Poster Session   Student Poster Competition, Volstorff B			
1:00-2:25 p.m.	Job Fair/Recruiting   Exhibitors, Volstorff B			
2:30-3:25 p.m.	<b>SESSION 7   Application</b> Chair: Speed Session by Grad Students  <b>Rajesh Godasu - DSU</b> <b>Lawrence Segbeho - SDSU</b> <b>Josh Eason - CreightonU</b> <b>Ganga Basyal - DSU</b> <b>Ayorinde Ogunyiola - SDSU</b> <b>Omar Sharif - USD</b>	<b>SESSION 8   Tools</b> Chair: David Zeng  <b>Jupyter Notebook &amp; Python for Data Scientists</b> David Zeng, Dakota State  <b>Introduction to Git and Github</b> Seema Bhandari, Dakota State	<b>SESSION 9   Forecasting</b> Chair: Ally Pelletier  <b>Data Science in the Life Insurance Industry</b> Gary Hatfield, Securian Financial  <b>Using Prophet Methodology for Forecasting</b> Ally Pelleiter, Polaris  <b>Multi-Step Forecast of Implied Volatility Surface Using Deep Learning</b> Zhiguang Wang, SDSU	<b>SESSION 11   Methods</b> Chair: Karissa Palmer  <b>Bootstrap Control Chart for Pareto Percentiles</b> Ruth Burkhalter, University of South Dakota  <b>Stress-Strength Inference for the Multicomponent system Based on Progressively Type-II Censored Samples From Pareto Distributions</b> Lauren Sauer, University of South Dakota
3:25-3:30 p.m.	Break			
3:30-4:30 p.m.	<b>SESSION 12   Finance</b> Chair: Thomas Brandenburger  <b>Bias In, Bias Out? How to Fight Biases in AI and Create Trust</b> Gerald Fahner, FICO	<b>SESSION 13   Data Science &amp; Startups</b> Chair: Samatha Nystrom  <b>Get Answers and Insights From Your Data</b> Dhiraj Sharan, Query AI	<b>SESSION 14   Methods</b> Chair: Tye Klinnert  <b>A Patient Centered Approach to IT Enabled Diabetes Self-Management: The Case of Saudi Arabia</b> Hassan Alyami, Dakota State  <b>A Dense-Inception Network for Medical Image Classifications</b> James Bold, Dakota State  <b>Exploring Task Decomposition with Ensemble Approach Using Reinforcement Learning</b> Raisa Nusrat, University of South Dakota	
4:30-5:00 p.m.	Closing Session: Thomas Brandenberger, Volstorff B   Poster Winners Announced			