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