# The 2020 INFORMS Workshop on Data Science

Hosted by The INFORMS College on Artificial Intelligence

**Updated July 8<sup>th</sup>, 2020**: Due to the ongoing COVID-19 pandemic, this year's workshop will be held ONLINE. More information will be posted on <a href="http://2020.dsworkshop.org/">http://2020.dsworkshop.org/</a> once available.

The INFORMS Workshop on Data Science is a premier research conference dedicated to developing data science theories, methods, and algorithms to solve challenging problems and benefit business and society at large. The workshop invites innovative data science research contributions that address business and societal challenges from the lens of statistical learning, data mining, machine learning, and artificial intelligence. The workshop welcomes original research addressing challenges in marketing, finance, and supply chain applications and problems in healthcare, energy, cybersecurity, social network services, privacy, credibility, etc. Contributions on novel methods may be motivated by insightful observations on the limitations of existing data science methods to address practical challenges, or by studying entirely novel data science problems. Research contributions on theoretical and methodological foundations of data science, such as optimization for machine learning and new algorithms for data mining, are also welcomed.

## **Research Contributions May Include:**

- Models for data science and predictive analytics
- Performance measures in data science with important practical implications
- Computational methods for big data, text mining, and natural language processing
- Innovative methods for social network analytics
- Data acquisition, cleaning, integration, and best practices
- Data-driven methods for cybersecurity and data privacy problems
- Prediction of rare events, anomaly detection, and fraud detection
- Methods for induction and inference with missing values
- Data-driven methods for effective risk management
- Data science for healthcare: chronic disease management, preventative care, etc.
- Data science for industrial applications: energy, education, finance, supply chain, e-commerce, etc.
- Large-scale recommendation systems and social media systems
- Visual analytics for business data
- Mobile analytics
- Experiences with big data project deployments
- Deep learning and business applications of AI

### **Important Dates:**

Paper submission Open: May 4, 2020

Paper submission Deadline: July 13, 2020 extended to July 31, 2020

Notification of Acceptance: August 24, 2020 extended to September 14, 2020 (tentative)

We look forward to receiving your paper submissions, and to seeing you at the conference!

#### **Information for Authors:**

- Maximum of 10 pages including tables and figures. References do not count towards the page limit. Use single-spaced text with 12-point font and one-inch margins on four sides, printable on 8.5 x 11-inch paper.
- Blind submissions
- INFORMS Workshop on Data Science or INFORMS do not take ownership of paper copyrights.

### **Best Paper Awards:**

The INFORMS College on Artificial Intelligence who hosts the Workshop on Data Science will be sponsoring the best paper and the best student paper awards. To be considered for the best student paper award, please confirm in the submission portal that a student is the main contributor when submitting your paper.

### **Organizing Committee:**

### **Honorary Chairs**

Olivia Sheng, University of Utah Alexander S. Tuzhilin, New York University

### Conference Chairs

Ahmed Abbasi, University of Virginia, <a href="mailto:ana6e@comm.virginia.edu">ana6e@comm.virginia.edu</a>
Yael Grushka-Cockayne, Harvard University, <a href="mailto:ygrushkacockayne@hbs.edu">ygrushkacockayne@hbs.edu</a>
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### Program Chairs

Brent Kitchens, University of Virginia, <a href="mailto:bmk2a@comm.virginia.edu">bmk2a@comm.virginia.edu</a>
Sriram Somanchi, University of Notre Dame, <a href="mailto:somanchi.1@nd.edu">somanchi.1@nd.edu</a>
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### **Publicity Chairs**

Tomer Geva, Tel Aviv University Shawn Mankad, Cornell University Dirk Neumann, University of Freiburg Paul Pavlou, University of Houston Junjie Wu, Beihang University

### Finance Chair

Alan Wang, Virginia Tech

### **Local Arrangement Chair**

Jingyuan Yang, George Mason University