IEEE Data Science Workshop

Call for posters - late breaking results

June 4-6, 2018 - EPFL, Lausanne, Switzerland

The 2018 IEEE Data Science Workshop is a new workshop that aims to bring together researchers in academia and industry to share the most recent and exciting advances in data science theory and applications. In particular, the event will gather researchers and practitioners in various academic disciplines of data science, including signal processing, statistics, machine learning, data mining and computer science, along with experts in academic and industrial domains, such as personalized health and medicine, earth and environmental science, applied physics, finance and economics, intelligent manufacturing.

The scientific program will include invited plenary talks, as well as regular oral and poster sessions with contributed research papers, data challenge sessions and late breaking results sessions. Late breaking results sessions will present posters about very recent advances in data science, without publication in the conference proceedings. Short abstracts (2 pages maximum) are solicited for late breaking sessions, in (but not limited to) the following topics:

Submission of abstracts
(two pages max)
At:
https://cmt3.research.microsoft.com/DS2018

- **Computational models and representation for data science.** Tensor factorizations. Compressive sampling. Randomized linear algebra. Graph simplifications and multiresolution representations. Transformations and spectral representations. Distributed algorithms.

- **Acquisition, storage, and retrieval for large-scale data science.** Hardware and architectures. Software and Cyberinfrastructure. Protocols for networked storage. Compression for data storage. Sketching and streaming. Scaling up algorithms.

- **Visualization, summarization, and analytics.** Data presentation architectures and dashboards. Data visualization and human perception / cognition. Business intelligence. Data wrangling.

- **Learning, modeling, and inference with data.** Graph signal processing. High-dimensional spatio-temporal modeling. Theoretical limits. Anomaly detection. Graph learning. Statistical modeling of heterogeneous data types. Post-selection inference. Analysis of deep learning algorithms. Crowdsourcing. Stream mining. Statistical uncertainty quantification.

- **Data science education.** Innovative approaches to teaching data science. Data-informed learning theory. Learning analytics.

- **Data science process and principles.** Reproducible research. Open source data science. Workflow. Meta-analysis. Data science ethics. Automation of data science via meta-learning. Algorithmic fairness. Bias in science.

- **Applications.** Social media, recommendation systems and collaborative filtering. Defense, intelligence and security. Biology and medicine. Astronomy and other physical sciences. Audio, image, video analytics and computer vision. Urban informatics. Social sciences. Business analytics, forensics and finance. Applications leveraging domain knowledge for data science.

IMPORTANT DATES

Deadline for poster submission
May 6, 2018

Notification deadline
May 10, 2018

Early registration deadline
May 7, 2018

Author registration deadline
May 7, 2018

CONTACT

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Keynotes Speakers

Dr. Lisa Amini, Director, IBM Research, Cambridge, USA

Dr. Surajit Chaudhuri, Microsoft Research, Redmond, USA

Prof. Andreas Krause, ETH Zurich, Switzerland

Prof. Volker Markl, Technische Universität Berlin, Germany

Prof. Gil McVean, Oxford University, UK

Prof. Victoria Stodden, UIUC, USA

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