The 17th IEEE International Conference on Machine Learning and Applications (ICMLA-2018)

Special Session: Machine Learning on Big Data

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Aim and Scope

This Special Session Machine Learning on Big Data (MLBD 2018) focuses the attention on machine learning models, techniques and algorithms on Big Data, a vibrant and challenging research context which is playing a leading role in the Machine Learning and Data Mining research communities. Indeed, while Big Data is gaining the attention from the research community, also driven by some relevant technological innovations (like Clouds) as well as novel paradigms (like social networks), the issues of devising and developing machine learning models, techniques and algorithms on Big Data represent a fundamental problem in this research context, this stirred-up by a tremendous range of critical applications that incorporate machine learning tools in their core platforms. To give some examples, in applicative settings where Big Data arise and machine learning fruitfully helps, we recognize, among others:
(i) machine-learning-based processing (e.g., acquisition, knowledge discovery, and so forth) over large-scale sensor networks introduces important advantages over classical data-management-based approaches; similarly, (ii) medical and e-heath information systems usually include machine learning tools for processing and mining very large graphs modelling patient-to-disease, patient-to-doctor, and patient-to-therapy networks; (iii) genome data management and mining can gain important benefits from machine learning algorithms. Some of the hot topics in the context machine learning on Big Data include: (i) machine learning over unconventional Big Data sources (e.g., large-scale graphs in scientific applications, strongly-unstructured social networks, and so forth); (ii) machine learning over massive big data in distributed settings; (iii) scalable machine learning algorithms; (iv) deep learning – models, principles, issues; (v) machine-learning-based predictive approaches; (vi) machine-learning-based big data analytics; (vii) privacy-preserving machine learning on big data; (viii) temporal analysis and spatial analysis on big data; (ix) heterogeneous machine learning on big data; (x) novel applications of machine learning on big data (e.g., healthcare, cybersecurity, smart cities, and so forth).

Submission Guidelines and Instructions

Papers submitted for reviewing should conform to IEEE specifications. Manuscript templates can be downloaded from IEEE website. The maximum length of papers is 8 pages. All the papers will go through double-blind peer review process. Authors' names and affiliations should not appear in the submitted paper. Authors' prior work should be cited in the third person. Authors should also avoid revealing their identities and/or institutions in the text, figures, links, etc.

Papers must be submitted via the CTM System by selecting the track "Special Session on Machine Learning on Big Data". All accepted papers must be presented by one of the authors, who must register. Detailed instructions for submitting papers can be found at How to Submit .

Paper Publication:

Accepted papers will be published in the ICMLA 2018 conference proceedings (published by IEEE).

Important Dates:
Submission Deadline: September 7, 2018
Notification of Acceptance: October 7, 2018
Camera-ready papers & Pre-Registration: October 17, 2018

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