Workshop on Parallel and Distributed Computing for Large Scale Machine Learning and Big Data Analytics (ParLearning 2014)

http://edas.info/web/parlearning2014/index.html
May 23, 2014
Arizona Grand Resort PHOENIX (Arizona), USA
To be held in conjunction with IPDPS 2014 (http://www.ipdps.org)

OVERVIEW

This workshop is one of the major meetings for bringing together researchers in High Performance Computing and Artificial Intelligence (Machine Learning, Data Mining, BigData Analytics, etc.) to discuss state-of-the-art algorithms, identify critical applications that benefit from parallelization, prospect research areas that require most convergence and assess the impact on broader technical landscape.

Data-driven computing needs no introduction today. However, the growth in volume and heterogeneity in data seems to outpace the growth in computing power. As soon as the data hits the processing infrastructure, determining the value of information, finding its rightful place in a knowledge representation and determining subsequent actions are of paramount importance. To use this data deluge to our advantage, a convergence between the field of Parallel and Distributed Computing and the interdisciplinary science of Artificial Intelligence seems critical.

The primary motivation of the proposed workshop is to invite leading minds from AI and Parallel & Distributed Computing communities for identifying research areas that require most convergence and assess their impact on the broader technical landscape.

TOPICS

Authors are invited to submit manuscripts of original unpublished research that demonstrate a strong interplay between parallel/distributed computing techniques and learning/inference applications, such as algorithm design and libraries/framework development on multicore/manycore architectures, GPUs, clusters, supercomputers, cloud computing platforms that target applications including but not limited to:

- Learning and inference using large scale Bayesian Networks
- Large scale inference algorithms using parallel TPIC models, clustering and SVM etc.
- Parallel natural language processing (NLP).
- Semantic inference for disambiguation of content on web or social media
- Discovering and searching for patterns in audio or video content
- On-line analytics for streaming text and multimedia content
- Comparison of various HPC infrastructures for learning
- Large scale learning applications in search engine and social networks
- Distributed machine learning tools (e.g., Mahout and IBM parallel tool)
- Real-time solutions for learning algorithms on parallel platforms

**IMPORTANT DATE**

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<td>Workshop Paper Due</td>
<td>December 30, 2013</td>
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<tr>
<td>Author Notification</td>
<td>February 14, 2014</td>
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<td>Camera-ready Paper Due</td>
<td>March 14, 2014</td>
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**PAPER SUBMISSION**

Submitted manuscripts may not exceed 10 single-spaced double-column pages using 10-point size font on 8.5x11 inch pages (IEEE conference style), including figures, tables, and references. More format requirements will be posted on the IPDPS web page (www.ipdps.org) shortly after the author notification. Authors can purchase up to 2 additional pages for camera-ready papers after acceptance. Please find details on www.ipdps.org. Students with accepted papers have a chance to apply for a travel award. Please find details at www.ipdps.org.

Submit your paper using EDAS portal for ParLearning: [http://edas.info/N15817](http://edas.info/N15817)

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