The 20\textsuperscript{th} IEEE International Conference on Machine Learning and Applications  
(IEEE ICMLA-2021)

Special Session: \textbf{Machine Learning for Geospatial Big data Management}  
December 13-16, 2021, Miami, Florida, USA

https://www.icmla-conference.org/icmla20/

\textbf{Introduction}

On the one hand, Machine Learning is an emerging field that unifies a number of research disciplines ranging from image processing, deep learning, computational intelligence, and computer vision to multimedia indexing, feature extraction, and big data analysis.

On the other hand, Geospatial Big Data is exponentially increasing in recent years and is receiving considerable attention in the R & D community to enable users analyzing huge amounts of data. In this way, requirements in terms of analysis and management of dynamic data, as well as high performance computing are greatly needed in order to fully exploit high-volume or high-velocity such data in many applications.

Employing machine learning techniques in the field of geospatial big data management is very beneficial for archeologists, researchers in academia and industry since it enables (i) better extracting new knowledge aiming at an efficient decision-making, (ii) automating the painstaking work of image interpretation and cultural feature recognition that archaeologists and researchers have always done by hand, and (iii) providing novel functionalities on such data (data access, data analysis, data acquisition, data storage, data pre-processing, data availability, data security, etc).

\textbf{Scope}

This special session places a special emphasis on deploying machine learning techniques in different sectors of the society, especially those related to geospatial big data management. It will be devoted to recent advances in the geospatial big data field.

Our aim is to provide an open access forum (i.e., academics, companies, archeologists, etc) for machine learning research on geospatial data Management, its applications and practice. We also target to improve the value of geospatial big data and take advantage of its value through the use of artificial intelligence algorithms as well as software engineering techniques (e.g., web-based services, business process management, process mining).

We target contributions from both academia and industrials on the following topics, but not limited to:
• General methods for data acquisition, exploration, and analysis
• Artificial intelligence (machine learning, deep learning, etc) for feature extraction, selection, classification.
• Computer vision for Data collection, storage, and Analysis
• Large scale data analysis techniques and algorithms
• Service-based, web-based solutions, and cloud-based approaches for archeologists
• Business Intelligence solutions for Modeling, provisioning, and management, integration of geospatial big data, quality inspecting and validation.

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 for Geospatial Big data Management ”. All accepted papers must be presented by one of the authors, who must register.

Paper Publication:
Accepted papers will be published in the ICMLA 2021 conference proceedings (to be published by IEEE).

A selected number of accepted papers will be invited for possible inclusion, in an expanded and revised form, in some journal special issues (Please list all the journal extension fast track, if any; otherwise, please remove this sentence).

Important Dates:
Submission Deadline: August 6, 2021
Notification of Acceptance: September 4, 2021
Camera-ready papers & Pre-Registration: October 1, 2021

Special Session Organizers

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