Special Issue

Resilient and Reliable Artificial Intelligence (AI) Systems

Message from the Guest Editors

This Special Issue on Big Data and Cognitive Computing focuses on the issues, principles, and design techniques relevant to the theoretical foundations and practical implications related to robust and reliable AI/ML systems. The Special Issue solicits original research relating to:

- the issues that are specific to the operation of ML systems in real-world environments;
- the principles of reliability, robustness, and resilience in the context of operational use of ML systems, and;
- the design techniques and design patterns for how to ensure the operation of the ML systems that satisfy those principles.

With a special emphasis on the

- methods and metrics for reliable AI/ML operations and model evaluation:
- vulnerabilities to adversarial inputs and data poisoning, and the mitigating approaches;
- techniques for scalable data management, systems resilience and reliability in the context of AI/ML.

Guest Editors

Dr. Edmon Begoli

Oak Ridge National Laboratory (ORNL), Oak Ridge, TN 37830, USA

Dr. Dimitri Kusnezov

The Department of Energy, Washington, DC 20585, USA

Deadline for manuscript submissions

closed (30 September 2021)



Big Data and Cognitive Computing

an Open Access Journal by MDPI

Impact Factor 4.4 CiteScore 9.8



mdpi.com/si/67542

Big Data and Cognitive Computing Editorial Office MDPI, Grosspeteranlage 5 4052 Basel, Switzerland Tel: +41 61 683 77 34 bdcc@mdpi.com

mdpi.com/journal/ BDCC





Big Data and Cognitive Computing

an Open Access Journal by MDPI

Impact Factor 4.4 CiteScore 9.8



About the Journal

Message from the Editor-in-Chief

Big Data and Cognitive Computing (BDCC) is a scholarly online journal which provides a platform for big data theories with emerging technologies on smart clouds and exploring supercomputers with new cognitive applications. It is a peer-reviewed, open access journal that publishes high quality original articles, reviews and short communications. The primary aims of this journal are to encourage contributions of high quality scientific papers relating to data management and analytics in industry, such as manufacturing, healthcare, education, media and business, data mining, and cognitive science. There is no restriction on the maximum length of the papers.

Editor-in-Chief

Prof. Dr. Min Chen

School of Computer Science and Engineering, South China University of Technology, Guangzhou 510641, China

Author Benefits

Open Access:

free for readers, with article processing charges (APC) paid by authors or their institutions.

High Visibility:

indexed within Scopus, ESCI (Web of Science), dblp, Inspec, Ei Compendex, and other databases.

Journal Rank:

JCR - Q1 (Computer Science, Theory and Methods) / CiteScore - Q1 (Computer Science Applications)

