big data and cognitive computing

IMPACT FACTOR 3.7

CITESCORE 4.9

an Open Access Journal by MDPI

Data Mining and the Future of Cybersecurity

Guest Editors:

Dr. Lidia Fotia

Prof. Dr. Domenico Rosaci

Prof. Dr. Giuseppe Maria Luigi Sarnè

Dr. Fabrizio Messina

Deadline for manuscript submissions:
closed (31 August 2021)

Message from the Guest Editors

Dear Colleagues,

Computer and communication systems are subject to repeated security attacks. In recent years, classification, anomaly detection, and temporal analysis, among other techniques, have all been used to discover and generalize attack patterns in order to develop powerful solutions for coping with the latest threats.

Specifically, the tasks represented in this issue include user authentication through biometrics, SCADA systems vulnerability assessment, user action identification in IoT encrypted traffic, and network anomaly and intrusion detection in large computer networks as well as in small ones such as car controller networks. In order to address all the issues surveyed in this volume, a plethora of approaches are presented, including ensemble methods, one-class classification methods, text mining, transfer learning, data stream mining, and temporal analyses via neural networks. The principal problems tackled by these techniques are problems of reliability, the need to function in different environments, or adaptability to dynamic conditions either due to natural changes to the systems or to adversarial settings.