1. Record Nr.   UNINA9910595066903321

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Titolo   Computational Methods for Medical and Cyber Security

Pubbl/distr/stampa Basel, : MDPI Books, 2022

Descrizione fisica 1 electronic resource (228 p.)

Lingua di pubblicazione   Inglese

Formato   Materiale a stampa

Livello bibliografico   Monografia

Sommario/riassunto Over the past decade, computational methods, including machine learning (ML) and deep learning (DL), have been exponentially growing in their development of solutions in various domains, especially medicine, cybersecurity, finance, and education. While these applications of machine learning algorithms have been proven beneficial in various fields, many shortcomings have also been highlighted, such as the lack of benchmark datasets, the inability to learn from small datasets, the cost of architecture, adversarial attacks, and imbalanced datasets. On the other hand, new and emerging algorithms, such as deep learning, one-shot learning, continuous learning, and generative adversarial networks, have successfully solved various tasks in these fields. Therefore, applying these new methods to life-critical missions is crucial, as is measuring these less-traditional algorithms' success when used in these fields.