Special Issue

Machine Learning for Attack and Defense in Cybersecurity

Message from the Guest Editors

Thanks to the breakthroughs in AI technology in the big data era, AI is now used everywhere in our life, from consumer electronics, vehicles, and smart systems in offices and factories, to various cloud services on the Internet. AI and machine learning are now becoming key technologies that support our lives and society. This means that our living infrastructure, property, and privacy have more opportunities to be targeted by cyberattacks. More seriously, it is considered that attackers also understand and use the characteristics of machine learning in a smart way to evade detection and carry out cyberattacks effectively and on a large scale. To face such tough situations in cybersecurity, we should discuss machine learning for cybersecurity not only from the defender side (blue team) but also from the attacker side (red team). This Special Issue welcomes high-quality papers on machine learning approaches to all types of attacks and defenses in cybersecurity. Case studies on actual cyberattack and cyberdefense systems based on machine learning are also welcome.

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Message from the Editor-in-Chief

As the world of science becomes ever more specialized, researchers may lose themselves in the deep forest of the ever increasing number of subfields being created. This open access journal Applied Sciences has been started to link these subfields, so researchers can cut through the forest and see the surrounding, or quite distant fields and subfields to help develop his/her own research even further with the aid of this multi-dimensional network.

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