Special Issue

Applications of Information Theory to Machine Learning

Message from the Guest Editors

Machine learning applications are prevalent across various domains, representing intricate and sophisticated systems. Examples include pattern recognition, natural language processing, recommendation systems, and image classification, among others. The utilization of information theory to delve into the behavior of such machine learning systems, explaining and predicting their dynamics, has garnered considerable attention from both theoretical and experimental perspectives. Numerous advancements have been made in terms of applying information theory to machine learning, encompassing correlation analyses for spatial and temporal data, as well as the development of construction and clustering techniques for complex networks within this context. The driving forces behind this progress often stem from specific application areas, such as healthcare, finance, and computer vision. This Special Issue aims to serve as a platform for the introduction of novel and refined information theory techniques tailored to machine learning applications.

Guest Editors

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The concept of entropy is traditionally a quantity in physics that has to do with temperature. However, it is now clear that entropy is deeply related to information theory and the process of inference. As such, entropic techniques have found broad application in the sciences.

Entropy is an online open access journal providing an advanced forum for the development and/or application of entropic and information-theoretic studies in a wide variety of applications. *Entropy* is inviting innovative and insightful contributions. Please consider *Entropy* as an exceptional home for your manuscript.

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