

# Special Issue

## Probabilistic Models in Deep Learning and Computer Vision Tasks

### Message from the Guest Editors

Deep learning has a wide range of applications in computer vision (such as image classification, object detection, semantic segmentation, medical image analysis, autonomous driving, etc.). By simulating the neural network structure of the human brain, it can automatically learn and extract the features of visual data, such as images and videos, and then perform complex visual tasks. Probabilistic models are an essential component of machine learning, which aims to learn patterns from data and make predictions on new, unseen data. To date, probabilistic models have been widely used in various applications like computer vision natural language processing tasks. Thus, developing probabilistic models can provide a powerful tool for machine learning tasks and help to solve complex problems.

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