



Regularization Techniques for Machine Learning and Their Applications

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Message from the Guest Editors

Regularization is probably the key to address the challenging problem of overfitting, which usually occurs in high-dimensional learning. Its primary goal is to make the machine learning algorithm “learn” and not “memorize” by penalizing the algorithm to reduce its generalization error in order to avoid the risk of overfitting. As a result, the variance of the model is significantly reduced, without substantial increase in its bias and without losing any important properties in the data. The main aim of this Special Issue is to present the recent advances related to all kinds of regularization methodologies and investigations of the impact of their application to a diversity of real-world problems.

- Regularized neural networks
- Dropout & Dropconnect techniques
- Regularization for deep learning models
- Weight-constrained neural networks
- L-norm regularization
- Adversarial learning
- Penalty functions
- Multitask learning
- Pooling techniques
- Model selection techniques
- Matrix regularizers
- Data augmentation
- Early stopping strategies





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Message from the Editor-in-Chief

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