

机器学习程序库

说明

1: 分布式话题模型学习算法 WarpLDA: 提出一种高效的分布式话题模型学习算法及其实现, 论文发表在 VLDB 2016, 源文件名: warplda.zip

Jianfei Chen, Kaiwei Li, Jun Zhu, and Wenguang Chen. WarpLDA: a Cache Efficient $O(1)$ Algorithm for Latent Dirichlet Allocation, To appear in International Conference on Very Large Data Bases (VLDB), New Delhi, India, 2016 (VLDB 2016)

2: 最大间隔深度生成模型: 提出深度生成式模型的最大间隔判别式学习算法, 显著提升预测性能, 论文发表在 NIPS 2015, 源文件名: mmdgm.zip

Chongxuan Li, Jun Zhu, Tianlin Shi, and Bo Zhang. Max-margin Deep Generative Models, In Proc. of Advances in Neural Information Processing Systems (NIPS), Montreal, Canada, 2015.

3: BayesPA 在线学习算法: 提出在线最大间隔贝叶斯学习框架, 应用于在线话题模型学习, 显著提升单机上处理大数据的能力, 论文发表在 ICML 2014, 源文件名: BayesPA.zip

Tianlin Shi, and Jun Zhu. Online Bayesian Passive Aggressive Learning, In Proc. of International Conference on Machine Learning, Beijing, China, 2014

4: 非参数化最大间隔矩阵分解: 提出分参数化的最大间隔矩阵分解算法, 自动推理隐含特征的个数, 论文发表在 ICML 2013 和 NIPS 2012, 源文件名: iPM3F.zip

Minjie Xu, Jun Zhu, and Bo Zhang. Fast Max-Margin Matrix Factorization with Data Augmentation, In Proc. of the 30th International Conference on Machine Learning, Atlanta, USA, 2013.

5. <https://github.com/stupiding/rcnn> 这个源程序是用带层内反馈的卷积神经网络做图片分类的, 用神经网络工具 Torch 编写。功能: 输入一张图片, 输出它属于某一类, 比如车、狗、猫等。包括训练和测试代码。参考论文

M. Liang, X. Hu, "Recurrent Convolutional Neural Network for Object Recognition," IEEE Conference on Computer Vision and Pattern Recognition (CVPR), 2015.

6. <https://github.com/stupiding/scene-labeling> 这个源程序是用带层内反馈的卷积神经网络做场景标注的, 用神经网络工具 Torch 编写。功能: 输入一张图片, 输出每个像素属于某一类物体, 比如树、天空、车、人等。包括训练和测试代码。参考论文

M. Liang, X. Hu and B. Zhang "Convolutional Neural Networks with Intra-Layer Recurrent Connections for Scene Labeling," NIPS, 2015.