文本评论情感深度学习建模分析研究

摘要

随着信息时代的道路不断前进，互联网提供了越来越多机会与平台给众多用户在网上发表言论。而这些丰富而又碎片化的言论在社会中有着不可小觑的影响。为了更好的运用这些评论的价值，本文提出了基于深度学习模型的情感分析研究。

本文选择以互联网电影资料库的评论文本研究，采用 Python 语言实现。首先，利用 Word2Vec 工具对文本评论进行特征提取，得到一个文本矩阵，接着介绍了卷积神经网络的原理、LSTM 结构、迁移学习的理论，然后相继进行了卷积神经网络实验与 LSTM 模型实验以及引入迁移学习之后的卷积神经网络实验。通过对比发现，迁移学习的引入要明显比传统的深度学习方法更优。

关键词：Word2Vec　卷积神经网络　LSTM　迁移学习

Abstract

With the continuous progress of the information age, the Internet provides more and more opportunities and platforms for many users to express their opinions on the Internet. And these rich and fragmented speech in the community has a significant impact. In order to make better use of the value of these comments, this paper proposes a deep learning model based emotional analysis.

In this paper, we choose the review text research of Internet Movie Database, and use Python language to realize it. First of all, we use word2vec to extract the features of text reviews and get a text matrix. Then we introduce the principle of convolutional neural network, the structure of LSTM and the theory of transfer learning. Then we carry out convolutional neural network experiment and LSTM model experiment and convolutional neural network experiment after introducing transfer learning. Through comparison, it is found that the introduction of transfer learning is obviously better than the traditional deep learning method.

Key words: Word2Vec ;Convolutional neural network ;Long short-Term memory ; Transfer Learning

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