**Universal Language Model Fine-tuning for Text Classification**

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**Abstract**

Inductive transfer learning has greatly im- pacted computer vision, but existing ap- proaches in NLP still require task-specific modifications and training from scratch. We propose Universal Language Model Fine-tuning (ULMFiT), an effective trans- fer learning method that can be applied to any task in NLP, and introduce techniques that are key for fine-tuning a language model. Our method significantly outper- forms the state-of-the-art on six text clas- sification tasks, reducing the error by 18- 24% on the majority of datasets. Further- more, with only 100 labeled examples, it matches the performance of training from scratch on 100× more data. We open- source our pretrained models and code1.

**摘要**

归纳迁移学习极大地影响了计算机视觉领域，但在NLP中，仍需要对现有任务从头开始进行特定的修改和训练。我们提出了一种通用语言模型微调方法（ULMFiT），这是一种有效的迁移学习方法，可应用于NLP中的任何任务，本文还介绍了微调语言模型的关键技术。我们的方法明显优于六个文本分类任务的最新技术，将大多数数据集的误差降低了18-24％。此外，仅使用100个标记示例，就可以在100多个数据上从头开始匹配训练的性能。预训练模型和代码已经开源。