A Mutually Exclusive Task Generation Method Based on Data Augmentation

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Abstract : In order to solve the memorization overfitting in the meta-learning MAML algorithm, a method of generating mutually exclusive tasks based on data augmentation is proposed. This method generates a mutex task by corresponding one feature of the data to multiple labels, so that the generated mutex task is inconsistent with the data distribution in the initial dataset. Because generating mutex tasks for all data will produce a large number of invalid data and, in the worst case, lead to exponential growth of computation, this paper also proposes a key data extraction method, that only extracts part of the data to generate the mutex task. The experiments show that the method of generating mutually exclusive tasks can effectively solve the memorization overfitting in the meta-learning MAML algorithm.

Keywords : data augmentation, mutex task generation, meta-learning, text classification.

Conference Title : ICSLP 2023 : International Conference on Speech and Language Processing

Conference Location : San Francisco, United States

Conference Dates : November 06-07, 2023

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