Deep Learning for NLP 2019 Shared Task

Contents

1 The Task

The DL4NLP 2019 shared task deals with poetry generation.

Poetry is a unique artifact of the human language faculty, with its defining feature being a strong unity between content and form. Poetry Generation is a problem from the Natural Language Generation domain, that focuses on the automatic generation of poems.

In this shared task, we want to explore various methods revolving around neural networks to create poems artificially. We provide you with a training set of human-written poems. Your task is to develop a neural model that generates new poems that match the training poems in form and style. We do not provide additional data or an evaluation framework – how to set up the generation task is entirely up to you.

The evaluation of your generated poems is handled via CodaLab. There, a scoring script (whose inner workings will not be revealed) will judge the quality of your generated poems. The goal is to build a neural model that generates new and original poems, while also reaching a high score.

2 Organizational Matter

2.1 Group Size

You have to enter a group in Moodle[1] in order to work on the shared task. Groups can consist of up to three people. Working in groups is optional, but recommended. Consider posting in the shared task discussion forum[2] if you are looking for team members.

2.2 Phases

The shared task is divided into three phases: a trial phase, a test phase and a phase for preparing system demonstration papers.

1. During the trial phase, you may upload as many predictions as you wish. You can share your results with other groups on the live leaderboard.

2 After the end of the trial phase, we switch to the test phase. Your evaluation results in the test phase influences your final ranking in the shared task. To keep you from tuning your predictions against the scoring function, only two (2) submissions are allowed per day during this phase.

3. Research is not only about trying things out, but also about documenting and discussing the results. In shared tasks, participants are expected to submit a short paper describing their approach. At the beginning of July, you can submit your system description papers and your code to Moodle. Your system's generated poems and your system description paper will determine your final shared task grade.

Time	Event
Tuesday, 14.05.19 17:00 CEST	Home exercise 05 released (incl. data) Group selection opens on Moodle Training set released Trial phase starts on CodaLab
Tuesday, 21.05.19 13:00 CEST	Home exercise 05 due Test phase starts on CodaLab
Friday, 29.06.19 23:59 CEST	Test phase closes on CodaLab (**Note: CL shows times in UTC**)
Tuesday, 09.07.19 13:00 CEST	Submission deadline for system descriptions and code on Moodle
Tuesday, 16.07.19 13:30 CEST	Last lecture with short system presentations and awards

Table 1: Relevant Dates

3 Data Formats

3.1 Training / Development Data

The training data file contains several *poems*. Poem boundaries are represented by empty lines. A poem itself consists of several lines, where each row contains a *verse*. A verse contains several *tokens*, i.e. words, which are separated by whitespaces.

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[1] Moodle group selection: `https://moodle.informatik.tu-darmstadt.de/mod/choicegroup/view.php?id=18620`

[2] Moodle shared task discussion forum: `https://moodle.informatik.tu-darmstadt.de/mod/forum/view.php?id=18622`

CodaLab Submission Format

For submissions, CodaLab expects the following file format:

```
<submission>.zip
└ poems.txt
```

The ZIP filename is not relevant. The ZIP file must not contain any subfolders. The name of the prediction file must literally be "poems.txt". The prediction file must contain exactly 1000 poems.

The submitted poems must be of the same format as the training data. However files that end with an empty newline are also valid.

A sample submission file is provided for comparison.

4 System Description Paper

After you submitted your predictions on the test set, you are given time to prepare such a system description paper with 2 – 4 pages in length. Your paper must be submitted in PDF format.

4.1 Contents

In your paper, please include the following information:

- introduction

- description of your approach

- research question / experiment descriptions / experiment setups

- results (preliminary results on the development set)

- discussion of your results

- conclusion

As an inspiration how your paper could look like, have a look at this paper for the CoNLL 2017 shared task: `http://universaldependencies.org/conll17/proceedings/pdf/K17-3002.pdf`

You are encouraged to perform multiple experiments and / or ablation tests, for example, how well do different approaches perform, how does the performance change if you modify individual parts of the system etc.

We encourage to use the ACL 2019 template as a basis for your paper. You can find a template for word and LaTeX here: `http://www.acl2019.org/medias/340-acl2019-latex.zip`

4.2 Grading

Overall, you can achieve 100 points in the shared task which count towards your exam bonus. The points depend on the achieved poem generation score (up to 30 points), the quality of your paper (up to 60 points) and on a short presentation to be held in the last lecture (up to 10 points).

Regarding the paper, your score will depend on:

- Content: How well did you describe your approach? Which type of experiments have you conducted and which conclusions have you drawn from your experiments?

- Readability: Is your paper easy to understand? Is everything well-explained?

- Originality: How original is your approach? Does it combine existing models in an unexpected way? Does it use techniques that go beyond the lecture?

- Soundness: Is your approach sound for the given task? Does it make sense to apply your model to the given task?

Details on the presentation requirements will be announced at a later point in time.

5 Rules

- You may use any implementation / framework / programming language that you want, as long as there is some connection to neural networks. Using preimplemented / pretrained models from github etc. is permitted.

- You are not allowed to submit human-written poems. This includes poems downloaded from the internet.