

# About the Beamer class in presentation making

## A short story

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Deep Learning, June 2020

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# Proposal

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# The Enron Email Dataset

no, i dont mind. : - )

—Original Message—

Hi how are you doing? I have a meeting from 4 to 5, do you mind waiting for me? Thanks.  
John

—Original Message—

hello

# The Enron Email Dataset

yuck yuck

—Original Message—

har har

The subject is: **Wine tasting.**

# The Enron Email Dataset

- <https://www.kaggle.com/claudioscheer/extract-reply-emails>;
- Get only emails with less than 256 characters;

Final dataset: 40 062 input-target pairs.

Train dataset: 10 002 input-target pairs.



# Samples

| Input  | Target  |
|--|---|
| I thought this one was canceled. So I declined to get it off my calendar.  | You're right.   |
| Rex - thanks for the quick response...please note the revised letters below. Previous email had a clerical error | Who will sign theses?   |
| Where can I get info on safety statistics for the pipes?   | Ralph, please get with Rod and provide what ever he needs in the way of Safety Stats. |

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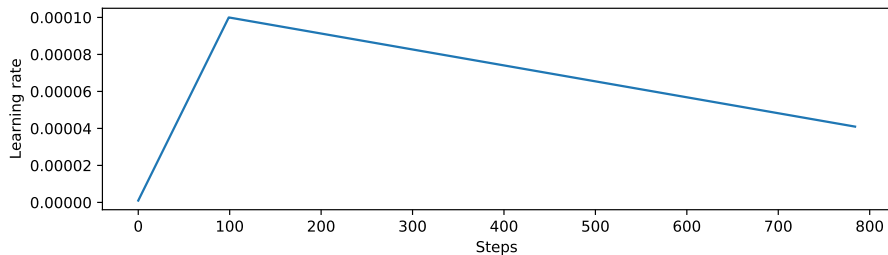
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Describe here the architecture that the professor showed in the class.

- BERT base was used;
  - 12 layers;
- Hugging Face and PyTorch was used;

# Learning rate schedule

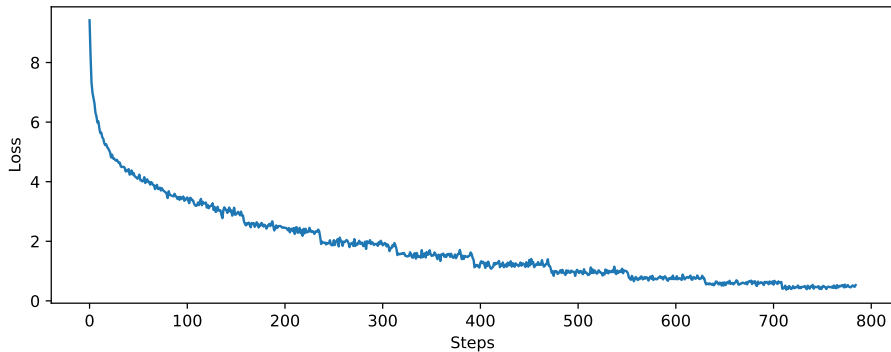
- Warm-up steps: 5000;
- Learning rate:  $1e-4$ ;



# Optimizer and hyperparameters

- Adam;
  - Adam epsilon:  $1e-4$ ;
- Batch size: 10;
- Training epochs: 10.5;
- Beam search hypothesis: 3;

# Loss function



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- 21 emails in the evaluation dataset;

- 21 emails in the evaluation dataset;
- BLEU score = 0.0;

| Input  | Target   | Generated  |
|--|--|--|
| nevermind. are you at work?                                    | yea  | i'm all alone over here...   |
| what re your plans for tomorrow?                               | drop prentice's car off at shop; go to dome              | leaving early tomorrow. leaving early. leaving early. leaving early.   |
| I just refaxed it. For your information, my total hours is 49. | I noted your hours..I will look for the t/s Thanks Lisa! | Thanks Rick, and let's talk after the holidays about a new game plan... Best regards and happy thanksgiving. Jaime Williams. |

# Generated replies

| Email   | Reply  | AI? | Correct? |
|---|--|-----|----------|
| Let me know if this works.  | This works great. Will let you know. as soon as I get a chance, let me know  | 0%  | yes      |
| Following are the terms under which I ran the Forward Obligation report and received this message: General SQL error. ORA-00907: missing right parenthesis. Terms: Let me know what you find. Thanks! | Kate, I ran the report with the exact same options and it came right up. Try it again, exactly as before. Usually if it works for one person and not the other it is a security issue. Let me know what happens. Thanks, Brettther | 0%  | yes      |
| Didn't you trade uranium at one time?   | Yeah, I know the buisness VERY well.   | 0%  | no       |
| Are you free for drinks either Monday or Wednesday?   | Yes  | 0%  | no       |
| Mons, I would be available on the 25th, 26th or 27th. I cannot make it the week of the 18th. Thanks, Bill.  | OK, so, let's see if we can get together later today. I have to leave at 16:00 for a few minutes, but I am sure that I will be out at that moment. Thank you Kim.  | 0%  | yes      |

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- <https://github.com/claudioscheer/seq2seq-bert>;
- Final release (v0.0.8);