

Poem Generation

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Real poetry

Authentic cultural texts written
by human, limited to English
literature

Artificial poetry

Entirely new poetic text, completely
generated by the model, trying
to resemble the human style



Michael Arman's **kaggle**TM Poems dataset

About Dataset

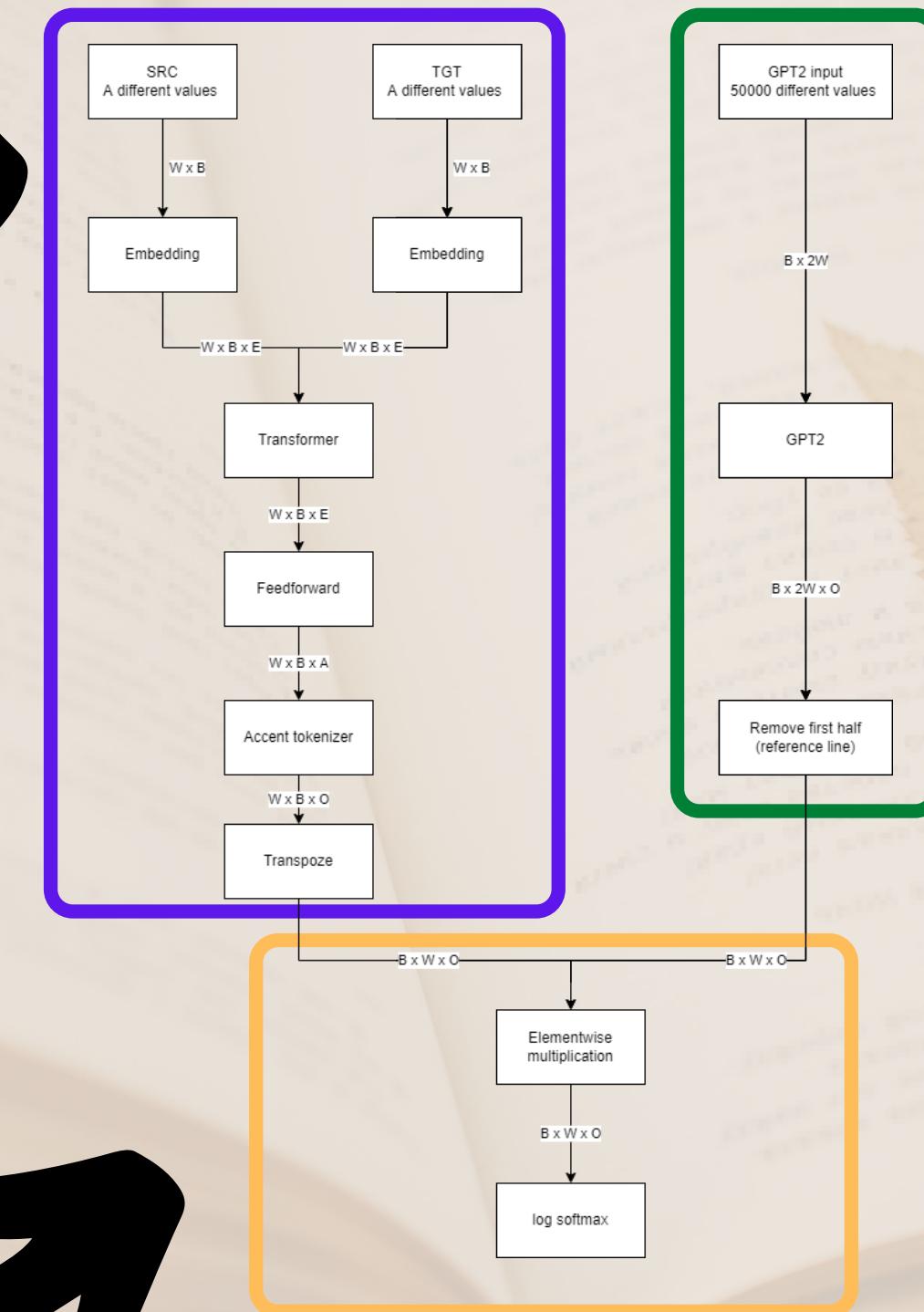
This dataset is comprised of two folders, both containing subfolders of poems. These poems are categorized by the form (e.g. haiku, sonnet, etc.) or topic (love, nature, joy, peace, etc.).



66

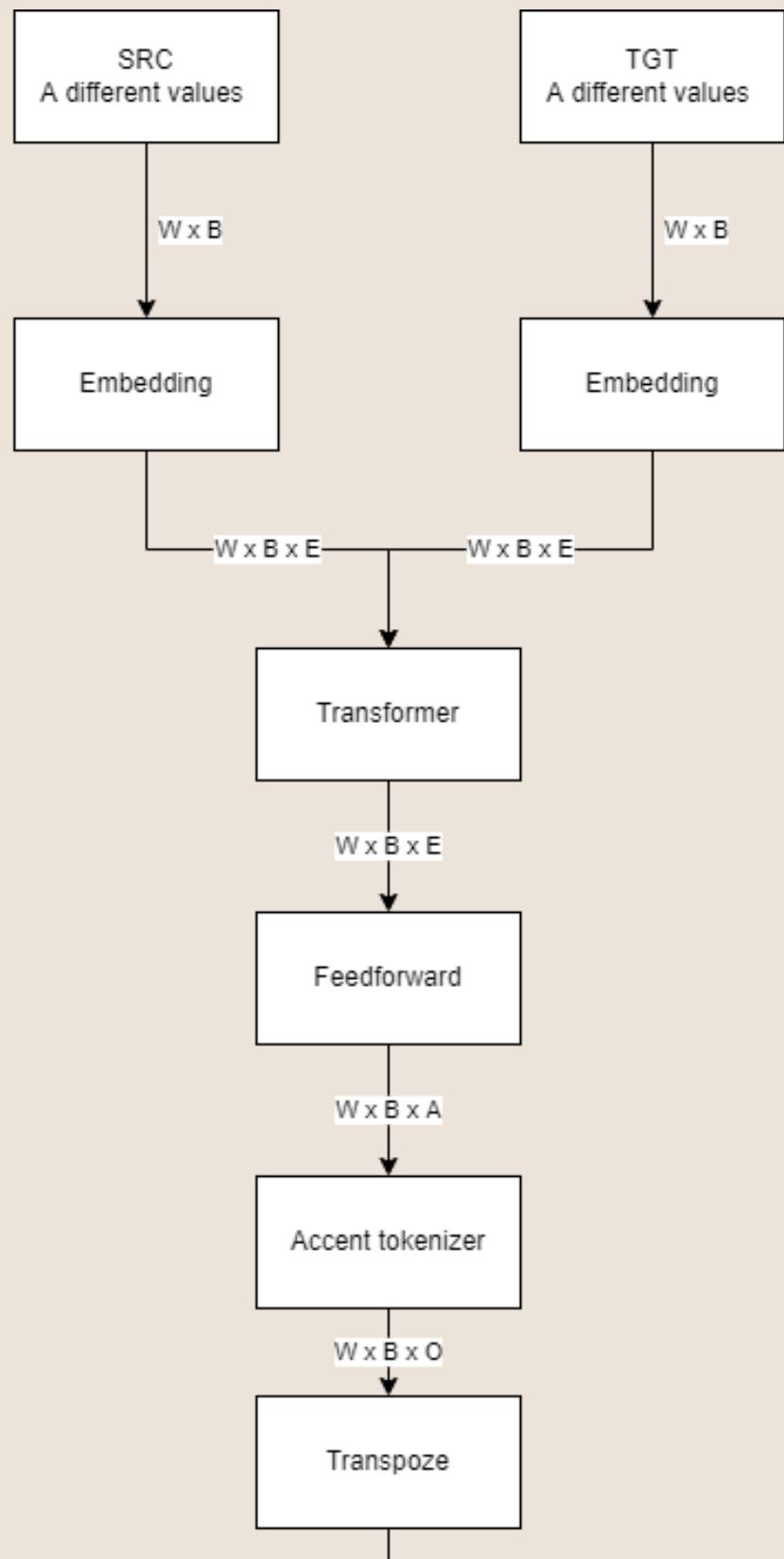
Accent model

Connection of
both parts



GPT₂ +
fine-tuning

99



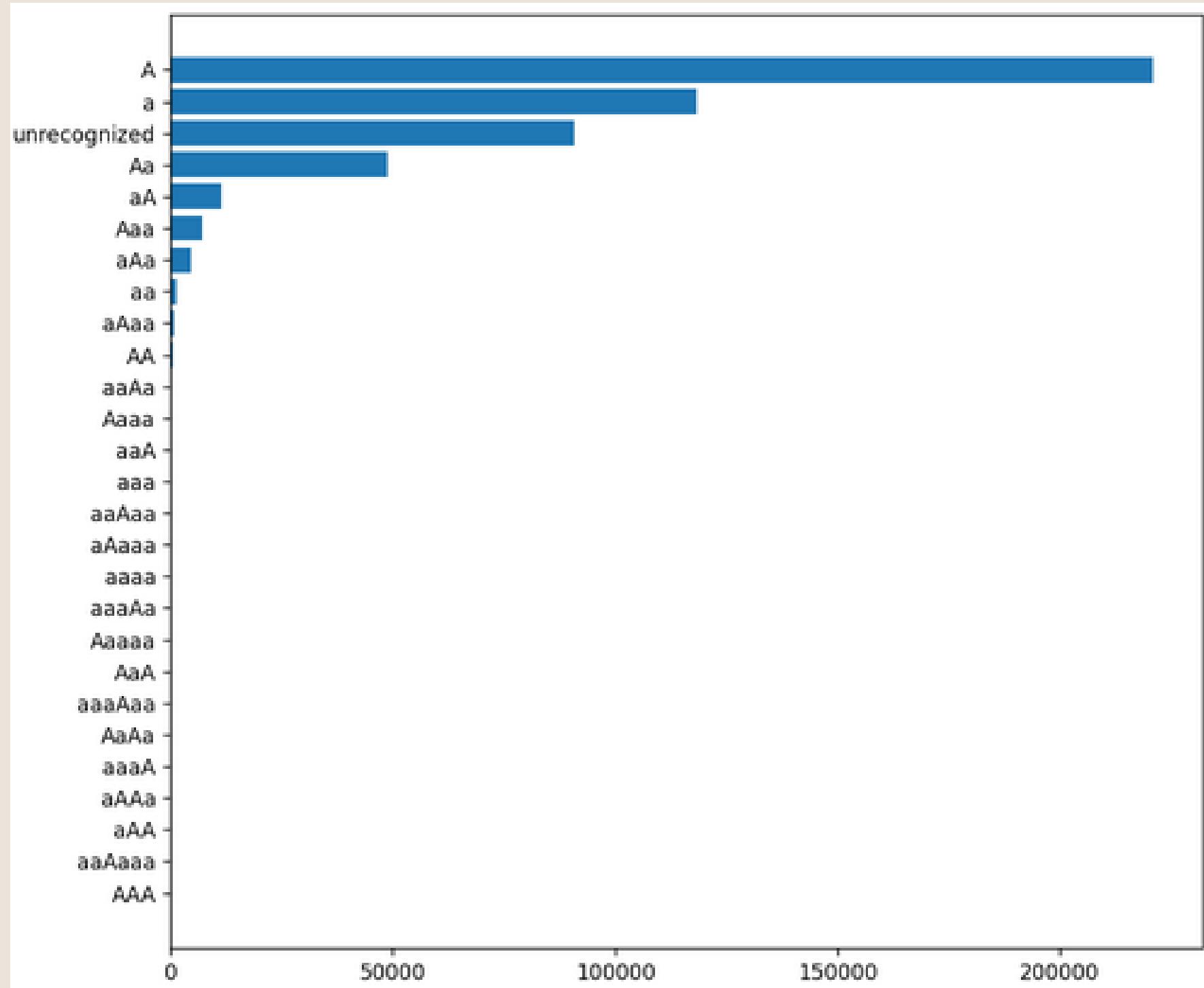
Accent model

→ our proprietary solution

→ transformer architecture

→ *pysle* package

B - batch size
 W - max number of words per line
 E - embedding output
 A - number of all possible accent types
 O - number of all possible words



accent prediction

Input first line: Once upon a midnight dreary

Input part of second line: while I pondered

Accents detected in first line a aA a Aa A A no Accent no Accent ...

Accents detected in second line a A A no Accent no Accent ...

Best candidates for next word:

A: 99.43318367004395%
a: 0.5643955431878567%
Aa: 0.0022517751858686097%
: 0.00016407100247306516%
aA: 6.774691918565168e-10%

Input first line: Do not go gentle into that good night,

Input part of second line: old age should burn

Accents detected in first line A A A Aa aa A a A no Accent no Accent ...

Accents detected in second line A A A no Accent no Accent no Accent ...

Input first line: Stasis in darkness. Then the substanceless blue

Input part of second line: Pour of tor and distances.

Accents detected in first line A a Aa A a Aa A no Accent no Accent ...

Accents detected in second line A a a A Aaa no Accent no Accent ...

Best candidates for next word:

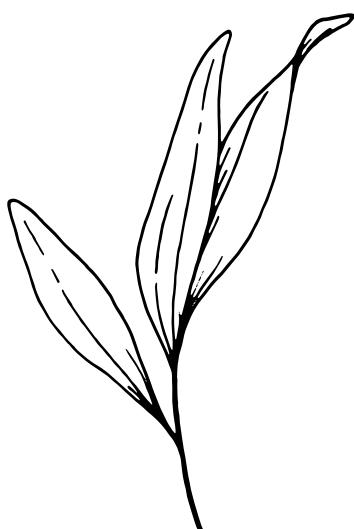
: 83.28053951263428%
A: 16.673557460308075%
a: 0.04590644966810942%
Aa: 9.097684383618798e-07%
aA: 1.4540406097045266e-11%

Input first line: Do not go gentle into that good night,

Best candidates for next word:
A: 99.9380350112915%
a: 0.06134043214842677%
: 0.0005922586296946974%
Aa: 2.255896447422856e-05%
aA: 1.9488731375222335e-10%



B - batch size
W - max number of words per line
E - embedding output
A - number of all possible accent types
O - number of all possible words



GPT₂

fine-tuning

→ pre-trained model

→ fine-tuned using Kaggle data

→ appropriately modified

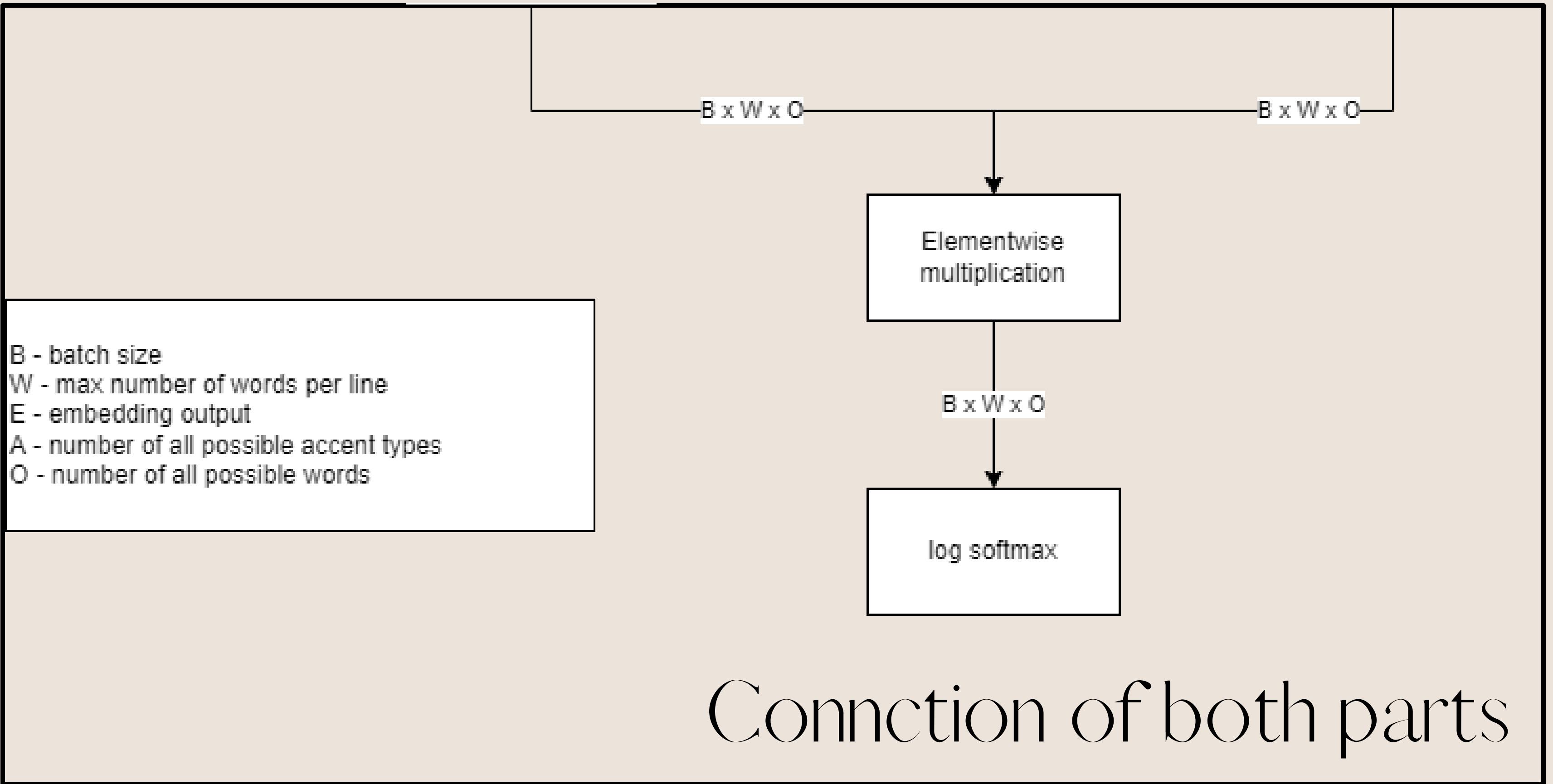
GPT2 input
50000 different values

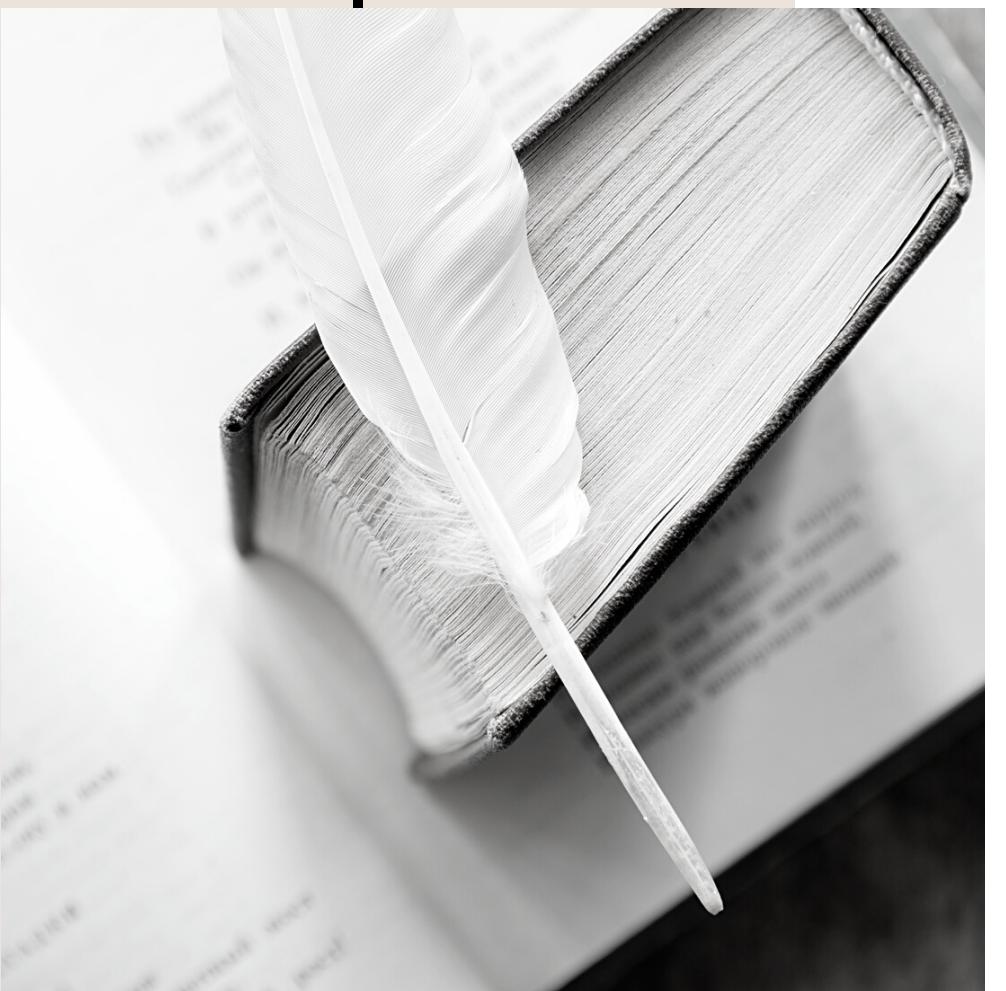
$B \times 2W$

GPT2

$B \times 2W \times O$

Remove first half
(reference line)





Results



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Input first line: Once upon a midnight dreary

Input part of second line: while I pondered

High temperature: while I pondered over the details of my past, my heart began to throb and I felt my life getting closer

Low temperature: while I pondered the fate of the world, I was struck by the sudden and unexpected change in the world.

Input first line: Stasis in darkness. Then the substanceless blue

Input part of second line: Pour of tor and distances.

High temperature: Pour of tor and distances.

"Let us go. This is the place. The whole place. It is

Low temperature: Pour of tor and distances. Then the substanceless blue Pour of tor and distances. Then the substanceless blue Pour of tor

Input first line: Do not go gentle into that good night,

Input part of second line: Old age should burn

High temperature: Old age should burn you."

The sun is not set. It is only at sunrise, when the

Low temperature: Old age should burn you to the ground.

I will not go to sleep until you have been

Before
fine-tuning

99

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After fine-tuning

Input first line: Stasis in darkness. Then the substanceless blue

Input part of second line: Pour of tor and distances.

High temperature: Pour of tor and distances. by air through thick count brit field though their soft and by way so long enough for a

Low temperature: Pour of tor and distances. by a single count or a single finger crime or heaven you may and by your ways to me

Input first line: Do not go gentle into that good night,

Input part of second line: Old age should burn

High temperature: Old age should burn up todos something extraordinary all that touches him with their own thought room is most ones heart shaped

Low temperature: Old age should burn up that first time for you to try to eat them very smile and dear lord and do not

“ ”

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(Model+fine-tuned gpt2)
vs (fine-tuned gpt2) fine-tuning

First line: when you come round a corner and

High temperature:

With model: i've no time to stop it my friends will id be as bold as you can be as you

No model: to be acknowledged never a one has a word is spoken to you she is no more brave for

Low temperature:

With model: i've no doubt id out just be dead for all my fun shell be not my hero i is

No model: for to have a ball between them they have no choice but to have him in them it a

First line: cool to look to something outside

High temperature:

With model: i've meet my odd odd odd hair may be found atans part in my heart so now i

No model: yourself something else very wrong something greater something else will happen that
i seem bad to be in hot

Low temperature:

With model: i've meetin you in heaven all i know is i in heaven all my bread is so deep

No model: yourself something else to abuse something to set you straight down that deeds
and you will not see again

“ ”

Poem Generation

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- Only GPT2 model
 - GPT2 with accent transformer

First line of poem

```
this definitely racks  
the joints this fires  
the veins
```

Temperature

0.80

Generate >>

!!! This fire is what the 3.0 mod is meant for and is awesome

In action...



Thank You