

Handwritten Letter Generator

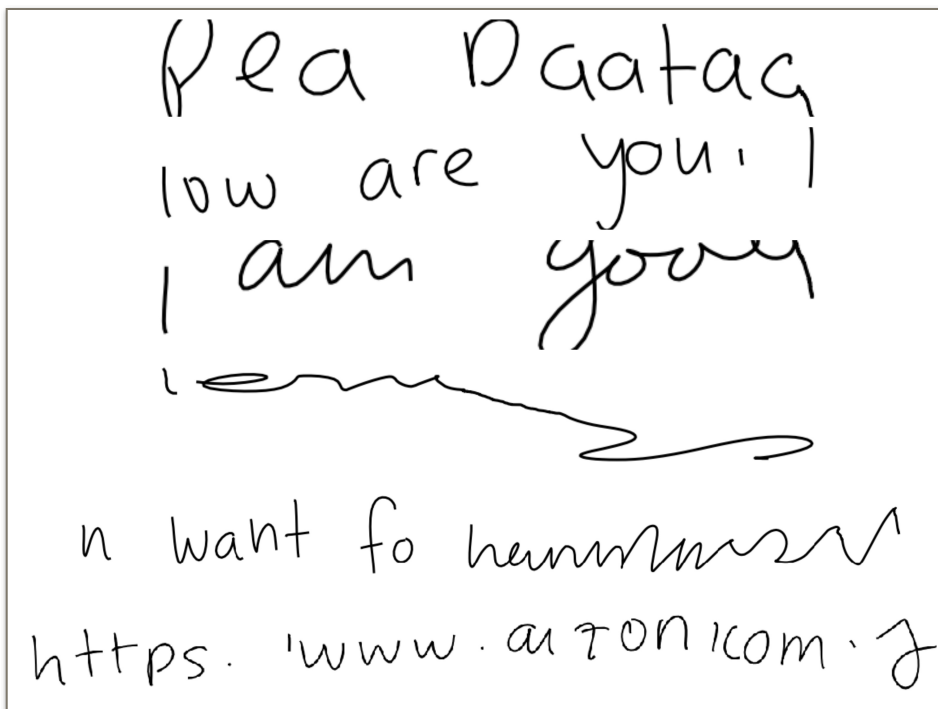
Abstract

In this project, we demonstrate handwriting generation using the Graves handwriting model which is constructed with three layers of LSTM cells, a attention mechanism digests an one-hot encoding of the sentence, and a mixture density network for adding some nature randomness. We generate four different handwritten letters written by four children to Santa Claus. Each letter is divided into several pieces of 20-character-long sentences to maintain accuracy.

Technical Approach & Results

Parameter Bias is changed among these four examples.

Bias = 1



Original text:

Dear Santa

How are you

I am good

Here is what

I want for Christmas

[https://
www.amazon.com/gp/
product/B00163U4LK?
pf_rd_p=f3acc539-5d](https://www.amazon.com/gp/product/B00163U4LK?pf_rd_p=f3acc539-5d)

Bias = 2

Original text:

Dear Santa

You better bring

my pony

this year

Or there will be

consequences

Dear Santa
u better bring
my pony
hhis year
there wlll be
oonsequences

Bias = 3

Original text:

Dear Santa

There is one thing

I want for Christmas

That one thing is to

bring Leonardo Dicaprio

to my house

because I think he is
cute

I would like to



meet him

If you can do that

I would be so grateful

Thanks Santa

Dear Santa. I
hhere is one thing,
h wat for christmas. I
hnat one thing is to. I
bring Leonaroo Daprio. I
le my house

beaause I hthink he is cute
I woud rihk do ni.

2 
I would be so greatall, I
hthank SSantar

Bias = 3

Original text:

Christmas List

Apple watch

multiplication cards

emoji stickers

A better life

no school

Christmas List. 1
Apple watch. n
multiplication cards
emoji
no better life
no school.