HACKPRESSIO

Text Generation

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Problem and Objectives

We were hired by Hackpressio to use machine learning to generate text with the similar voice and style of a particular given author. Each team member selected their own authors and text and created and tested several different types of models and trained them to get the most accurate and realistic generated text.

Research and Correlated Features

Model 1#

One thing that we tried was making a mix of a GRU and a LSTMS model. We found that it did produce words but the grammar was not very good. Some of the words would mesh together. For example "would not" would become"wouldnot" We did run it with 20 epochs. We did keep the batch size the same. This model would also make words but not really in a good word flow/Grammer

Here is a line form the predicted text from this model

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The fingers middle on the way of the many longer risen
and a hundy baw his most considerations with the welce, not last night for A body above
miserable performance for Lucie and her hair, when he
could go to the ringing, the solitary stone walls, and lead--Monsieur her to him of anybody very
bad rings, and women down, on which he atsoded some ring on his feet.
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If you notice the example that there are a lot of commas but not really any periods. The only period is the one we have at the end of a very long run on sentence.

Model 2#

This model was given several books by Mark Twain to train with. Here is a sample of what it generated given the beginning line of "The world seemed like such a peaceful place until the magic tree was discovered in London."

The world seemed like such a peaceful place until the magic tree was discovered in London. The
widow Douglas, the dancing breakfastored and gave out a bsyoutial for hadge of Alite,
and the two or three times (when I had if they can't feel badly and corner of his anike, and ware about
the right time how lay in the world. It was
delighted to some evening behind. To Souther opened into a doze
 Silence, In an unfroluction that the boys thought at the ticking of
a declaim, "Long Island oh! that toe don't I dog and New Losk left, and a-while
an old book for I knew now. I want to go and death, and then I live it?"

Model 3#

This model, using gru, trained on Arthur Conan Doyle, the author of Sherlock Holmes produced some interesting results seen below

He was left standing in the rain. When I reached the

loss of the South Coarse there was no doubt as to the police, and
should have been his reasons for such a situation. There was no sign of a
single contents, too, my hotel, is whether when I saw the daughter of
the moor, I think, all that he was not a horror of it. We were the
same troubled, which was quite as more difficult, have really been
practised in the country, there was no sign of a part of the moor,
and I had followed him. "It is a simple case," he said, "that when you have
the pleasure on the whole of your successes are that has had me from
all other confidences."

"You have come," he cried. "It is as well for you, John Ferrier," he said. "I
would not have the hintre of his head and showed me that he was
exceptionally settled, which would not have been one thing in the direction
of his anger.

"Oh, yes, I know, so we were that no man himself as a single hand
up among the third principle. Well, Watson, what do you make of
our visitor's surprise at the gate when I came to myself and not only
person."

He was a man of a very linent detective savage boand which he had
followed, but I could see that he was found him as a common long,
about my friend's plain stretched his little glimpse of being an
other open.

"Yes, I didn't mean, the swept part of the wood, and so made up
with his father, and that he was not a half-past sight. Then he never comes
across the moor, some small poisoned half of a desperate matter, as it
would have been his own hands up and down to the station and took out
upon the moor. Then he turned to me, too, was the name of Monday, and
brushing in the distance between them and the world has been by
recovered. It was nearly nine o'clock when Sherlock Holmes left me, but I
had first chosen to the south, the spotted sky, that was from the
seat which he had come to a halt, and had all been before. The
where he was so dreamy by the stone statues of the spot where
they listless as the blowed demotion of the firm, but we went to
search for him, and the other was engaged in her face, and, his little
escordamed, with a heavy stick in his hands into his own words at
all, being a puzzle, and which he took in my heart
through the gloom, which he had come at a couple of smoke.

"'MY DEAREMY's Boocco?"

"Indeed, its sounds father was a common subject in his whole experiences,
and a man of a man who was this moor and which would be
away at the conclusion of his own commends at a small days

Solutions Value and Conclusion

We were able to create several different types of models that gave different results. At the moment we haven't perfected a model yet to give perfect readable results every time but we were able to find that the RNN models ran well and when trained with a

large set of text by the same author it was able to perform better and generate better text.

Links

Final: Avery R

Brandon W:
https://colab.research.google.com/gist/bwareing/930d3caaaffbe6e1fbb0bfe9965a9518/booky.ipynb
Nathan W:
https://colab.research.google.com/gist/Natosphere/34e0922eda42a806b6fd1b5c84b34214/nathanwheelwright_module6_novels.ipynb
Alex B:
https://colab.research.google.com/gist/desertalex/ef399d981421b7320a074cd15ace68c5/copy-of-book_publishing_starter.ipynb
Avery R:
https://github.com/jarreed0/school_stuff/blob/main/book_publishing_starter.ipynb