# Did Shakespeare Really Write Shakespeare? A Monte Carlo Approach

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#### **Abstract**

The Shakespeare authorship question is the debate that William Shakespeare was not the true author of his works. Anti-Stratfordians, people who believe Shakespeare did not write his plays site various evidence such as Shakespeare's poor village, his inconsistent signature, his illiterate parents, a lack of any written material or letters (besides poorly drawn signatures) by his siblings or children as evidence that he was not the author of his plays. Some of the alternative theories suggest that these plays were written by multiple authors or that Shakespeare had collaborated with other authors such as Christopher Marlowe. We will attempt to use modern text prediction techniques as well as monte carlo simulations to test this theory. If Shakespeare is truely the author of his plays, the prediction error rate after training a language generation LSTM model should be constant throughout his plays with no one play significantly differenct in prediction error.

## Introduction

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**Lorem ipsum** dolor *sit amet*.

- Single asterisks italicize text *like this*.
- Double asterisks embolden text like this.

Start a new paragraph with a blank line separating paragraphs.

- This will start an unordered list environment, and this will be the first item.
- This will be a second item.
- A third item.
  - Four spaces and a dash create a sublist and this item in it.
- The fourth item.
- 1. This starts a numerical list.
- 2. This is no. 2 in the numerical list.

## This Starts A New Section

## This is a Subsection

### This is a Subsubsection

## This starts a Paragraph Block.

This will create a block quote, if you want one.

Want a table? This will create one.

Second Header
Cell 2 Cell 4

Note that the separators *do not* have to be aligned.

Want an image? This will do it.

fig\_caption: yes will provide a caption. Put that in the YAML metadata.

Almost forgot about creating a footnote.<sup>1</sup> This will do it again.<sup>2</sup>

Want to cite something?

- Find your biblatexkey in your bib file.
- Put an @ before it, like ?, or whatever it is.
- ? creates an in-text citation (e.g. Smith (1984) says...)
- (?) creates a parenthetical citation (Smith, 1984)

That'll also automatically create a reference list at the end of the document.

In-text link to Google as well.

<sup>&</sup>lt;sup>1</sup>The first footnote

<sup>&</sup>lt;sup>2</sup>The second footnote

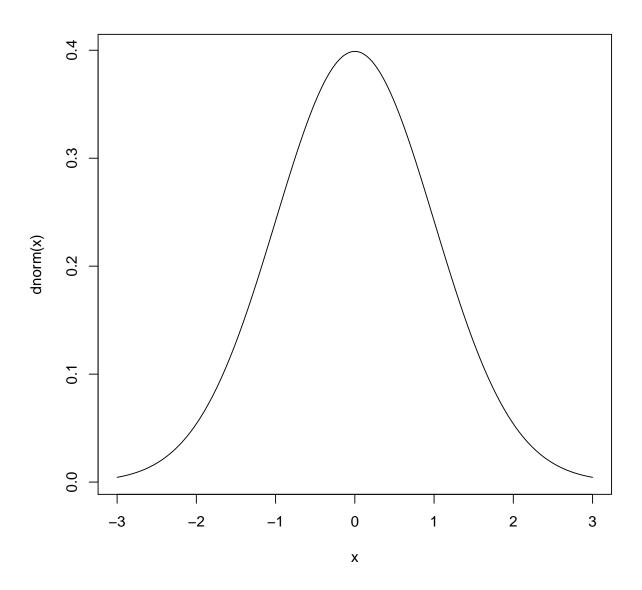


Figure 1: caption for my image