A Tutorial in using Markdown for scientific papers

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Disclaimer

There are some weird formatting bugs to workaround still.

Introduction

Markdown[1] is a markup format created by John Gruber, a tech writer and podcaster in the early 2000's. Markdown is human readable and used widely in tech, because of it's powerful, yet simple format.

The footnote above is inserted in text by using the following notation:

```
Markdown [^gruber] is a ...

# Then we can define the text that should appear

  in the footnote

[^gruber]: https://en.wikipedia.org/wiki/Markdown
```

If you are not familiar with MD, check out this page: https://guides.github.com/features/mastering-markdown/.

I personally prefer writing MD with MarkText

```
$brew cask install mark-text
```

Including images

It is easy to include images in this file by invoking the following command in your file:

```
![duck.jpeg]
```

Including bibliographies

Shubernetskiy (2019)

You can do this by doing the following in your main md file:

[1]https://en.wikipedia.org/wiki/Markdown

Figure 1: Here is a duck!

```
@shubernetskiy_2019
```

In the paper.bib file, you will see something like:

```
@misc{shubernetskiy_2019,
  title={Markdown to PDF With IEEE Style},
  url={https://miki725.com/2019/10/15/markdown-to-pdf-ie
  year={2019},
  month={Oct}
}
```

Including LaTex in Markdown

It can be cumbersome to do some things purely in markdown, for this we can include LaTex in our md:

Category	Number	Percent
normal	35998	84.88%
abusive	4530	10.68%
hateful	1881	4.44%

Here is the code to do this:

```
\begin{tabular}{|c|c|c|}
\hline
 \text{Category} & \text{Number} & \text{Percent} \tabularnewline
\hline
normal & 35998 & 84.88\% \tabularnewline

abusive & 4530 & 10.68\% \tabularnewline

hateful & 1881 & 4.44\% \tabularnewline

\hline
\end{tabular}
```

Including contents of other files

You should see the contents of a seperate file now included below:

Content you see here is from the file being pulled in with pandoc-include, it is not from the main file! Use this feature to pull in files written to file system by your project!

We can also use this to include perhaps a classifaction report produced from sklearn:

	precision	recall	f1-score	support
normal	0.73	0.51	0.60	288
abusive	0.88	0.29	0.44	408
hateful	0.25	0.79	0.38	169
accuracy	0.00	0.00	0.46	865
macroavg	0.62	0.53	0.47	865

weightedavg 0.71 0.46 0.48 865

Building the report

This set of scripts is based on Shubernetskiy (2019), and Ogden (2017). Run the following code to make the pdf:

```
$ make paper
```

Acknowledgements

- https://gist.github.com/maxogden/97190db73ac19fc6c1d9beee1a6e4fc8#file-paper-md
- https://miki725.com/2019/10/15/markdown-to-pdf-ieee.html

References

Ogden, Max. 2017. "How to Make a Scientific Looking PDF from Markdown (with Bibliography)." https://gist.github.com/maxogden/97190db73ac19fc6c1d9beee1a6e4fc8.

Shubernetskiy, Miroslav. 2019. "Markdown to PDF with IEEE Style." https://miki725.com/2019/10/15/markdown-to-pdf-ieee.html.