

Better NLP: working towards it!

9th March 2019, AI Labs,
DS for IoT meetup

Get the slide deck (just now) at



<http://bit.ly/better-nlp-launch>

About me

- Freelance Software / Data Engineer
- Interests: code quality, testing, performance, AI/ML, NN, etc...
- Strengthening teams and helping them accelerate
- Involved with various developer communities
- Attends and helps co-organise various events and conference

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Disclaimer

- Sharing my ideas, but *YMMV*
- Possibly missed one or more things or made mistakes, *I ask for forgiveness*
- Not clear for some, *my apologies*
- Lots of info and resources
- Lots of takeaway, please go home and do some more research
- Please contribute and share, please tweet!

Thank you

- DS for IoT meetup
- Sponsor(s) for the event
- Guests and attendees
- Anyone else not named...

Agenda

- Background
- Inspiration
- NLP ...
- Artifact of the learning
- Demo (show code)
- Resources
- Thanks
- Contact & feedback, Q &A

Background

- AI Labs initiative
- Learning DL from *Machine Learning is Fun!*

Background

- *What Machine Learning is Fun!*
 - Ebook (PDF)
 - VM image
 - Project source code (python)
 - Extra Advance Python tutorial (mini PDF booklet)

Background

- What topics did *Machine Learning is Fun!* cover?
 - Explanations on Machine Learning
 - Explanations on Neural Networks
 - CNN, RNN, masked R-CNN, etc..
 - Natural Language Processing (NLP) & Generating text
 - Image Processing
 - Deep Learning
 - GANs, Chat Bots, Speech Recognition and other fun topics
 - See [book](#) and author's [medium page](#)

Inspiration

- Inspired by the NLP chapters of *Machine Learning is Fun*
- Skipped all other bits as everyone knows about them and it's pretty common topics
- Found Generating text using Recurrent Model interesting but haven't included atm, will look into it later

NLP from Machine Learning is Fun!

- Examples on SpaCy, Texacy and Rasa NLU, FastText
- Mention of other NLP libraries/frameworks
 - Pytext
 - Vowpal Wabbit
- NLP libraries/frameworks out there
 - StanfordNLP
 - Vowpal Wabbit

Artifact of the learning!

- Progra/library wrapping NLP libraries (Python)
- Uses Spacy and Texacy
- Measure model loading time
- Make it easier to learn and understand NLP & tech stack
- Implementation examples
 - Extract entities
 - Extract nouns (Proper, Common, etc..)
 - Gather facts from text
 - Obfuscate text

Artifact of the learning!

- Improve python skills
- Learn more on
 - AI
 - ML
 - DLP
 - NLP
- Improve the library further: wrap more such useful programs

Demo time!

Show and tell!
(if time permits)

Jupyter notebooks

Coming soon!

Open to Pull Request from you

Vision and future!

What can you see in the crystal ball? Does the idea resonate with you?

Summary

- Learning from Machine Learning is Fun ebook
- Toy implementation for NLP
- Lots more things to add
- Share and contribute
 - create your first Pull Request on NLP, on AI, on ML

Resources

- Source code of Better NLP
- Awesome AI, ML, DL resources
- Machine Learning is Fun site | Medium site

Thank you, again...

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Feedback

Please share your feedback,

[@theNeomatrix369](#)

to be applied to the slides for
everyone's benefit