

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 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

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 its 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!

- A module / library / program written in Python
- Use Spacy and Texacy
- Loads model and measures time to load the model
- 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!

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, to be applied to the slides for everyone's benefit

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