

Natural Language Processing

Course summary

W5 Agenda

- **Assignment presentation**
- **How to expand NLP and ML knowledge**
- **Generative AI**
- **Quick feedback session**

Assignment presentation

Assignment summary

- Are you happy with the model's performance?
- What was the biggest challenge?
- Do you have any ideas how this approach could be transferred to real life business scenario?

How to expand NLP and ML knowledge

All the learning and practice is easily available online

Online courses and materials

- Coursera
- Medium
- Udemy

Kaggle and pet projects

- Kaggle – competitions and reading other people's code
- Pet projects – find some data you are interested in and do something useful with it

Recommended courses

- All the courses from DeepLearning.AI and Andrew Ng on Coursera
- I personally recommend:
 - **Especially Machine Learning by Stanford University**
 - DeepLearningAI's **Deep Learning Specialization**
 - DeepLearningAI's **Natural Language Processing Specialization**
 - **Generative AI with Large Language Models** DeepLearningAI&AWS
- From my perspective these materials combine a good theory-to-practice ratio and really accelerate ML/NLP learning. These recommendations are based purely on my personal experience

No better way to learn than starting to code!

- But there is no substitute for coding – ML or any area of programming is a craft and the only way to master it is to practice
- Kaggle projects are nice to start as you can get inspired by code written by great engineers
- Once you are off the ground it is best to do something unique – get some data that you are actually interested in and do something useful with it
- Avoid committing too much time to working with the most popular datasets like Titanic, MNIST, IMDB etc. – do something original

Generative AI

Generative AI seems to have human like capabilities

Chat GPT



- Generate human-like conversations and answer
- Answer complex queries on any topic
- Great at writing and refactoring code

Stable Diffusion



- Text-to-image generation
- Accelerates creative process
- Still some way to go before replacing actual graphic designers

Prime Voice AI

Eleven Labs

- Mimic any voice and maintain emotions
- Potential to replace lectors and dubbing

But it also present a wide range of issues

Intellectual property

An image generation model processes thousands of images – is it a digital age equivalent of an artist visiting The Louvre or is it actually profiting from artists' talent for free?

Limitless fake news

Autogenerating content is nearly free, how can we control its quality? If fake news is a problem when someone has to spend time making it up, how can we handle endless, autogenerated fake news?

Cheating and plagiarism

Can students find information and learn faster or will they just auto-generate their homework?

Impersonation

Generative speech and video makes it easier to create fake videos. How will we validate if we are speaking to the actual person if his voice can be copied with a few seconds recording?

Handling these issue in the future can become a whole new industry

Artificial Intelligence will not replace programmers and engineers...

**... but programmers leveraging AI to make their work more efficient will
replace ones who don't**

Thanks for your attention

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Feedback session

I would really appreciate you spending 5 mins on a quick feedback form
so that I can improve my future courses:

[https://docs.google.com/forms/d/e/1FAIpQLSfIR1ZE4iXEZop5z1Kom7FEEMBj
htH48gZ4tX4N0tv6i75BHQ/viewform](https://docs.google.com/forms/d/e/1FAIpQLSfIR1ZE4iXEZop5z1Kom7FEEMBjhtH48gZ4tX4N0tv6i75BHQ/viewform)