Machine Learning

Introduction. Course logistics

Aleksandr Petiushko

ML Research

Content

Content

Intro

About the lecturer[1]

- Aleksandr Petiushko, PhD in theoretical CS (2016)
- Lecturer in Lomonosov MSU / MIPT for Machine Learning, Computer Vision, Deep Learning Theory, Python for an ML Researcher since 2019
- Former Huawei Chief Scientist (Scientific Expert), AIRI Director of Key Research Programs (Leading Scientific Researcher), Nuro Head of ML Research, Gatik Head of AI Research

[1] Homepage: `https://petiushko.info/`

Intro

Time to introduce yourselves: what are your hobbies, motivation in ML, etc.: please go into "**Module 1 Students Introduction**" thread

Sofia Plagiarism Policy

- It covers parts "*sourced from AI*"
  - Please read the "**Sofia Plagiarism Policy**" thread
  - **First offense**: students need to rewrite assignment
  - **Second offense**: students fail the course
  - **Third offense**: students are to be withdrawn from their program

Note about xGPTx

- It can produce very plausible answers in 90% of cases

Note about xGPTx

- It can produce very plausible answers in 90% of cases
- The caveats are the following:

Note about xGPTx

- It can produce very plausible answers in 90% of cases
- The caveats are the following:
  - It can really hallucinate some things which are just untrue

Note about xGPTx

- It can produce very plausible answers in 90% of cases
- The caveats are the following:
  - It can really hallucinate some things which are just untrue
  - It can produce very different information in comparison to the source used to ask question (e.g., book chapter)

Note about discussions

- Discussion answers like “I agree because of bla-bla-bla” won’t be graded — they do not provide any value

Note about discussions

- Discussion answers like “I agree because of bla-bla-bla” won’t be graded — they do not provide any value
- Only the answers with some non-trivial arguments that:
  - either contradict the initial post,
  - or add some non-obvious missing things to the initial message

  will be considered as graded ones

Course logistics

- Course grading will be done based on attendance, assignments, discussions, coding problems, challenge, and the final exam.

Course logistics

- Course grading will be done based on attendance, assignments, discussions, coding problems, challenge, and the final exam.
- Contribution:
  - 70%: attendance, assignments, discussions, coding
  - 30%: exam

Course logistics

- Course grading will be done based on attendance, assignments, discussions, coding problems, challenge, and the final exam.
- Contribution:
  - 70%: attendance, assignments, discussions, coding
  - 30%: exam
- Preliminary grading scale:

Grade	Percent accumulated
A	$\geq$ 90 %
B	80-89 %
C	70-79 %

Late Submission Policy

Late submission deduction percent: **15% every day**;

Late Submission Policy

Late submission deduction percent: **15% every day**;

- It means that if you're **7 days late** you'll get **0 score** but **need to submit anyway**.

Makeup Policy

Missing onground class:

- Student's grade is dropped by 10%;

Makeup Policy

Missing onground class:

- Student's grade is dropped by 10%;

Missing Exam:

- A student gets 0 for the Exam;

Makeup Policy

Missing onground class:

- Student's grade is dropped by 10%;

Missing Exam:

- A student gets 0 for the Exam;

Missing Assignment in time (1 week, please refer to the *Late Submission Policy*):

- No makeups, i.e. 0 for the Assignment;

Makeup Policy

Missing onground class:

- Student's grade is dropped by 10%;

Missing Exam:

- A student gets 0 for the Exam;

Missing Assignment in time (1 week, please refer to the *Late Submission Policy*):

- No makeups, i.e. 0 for the Assignment;

Unless:

- A Student has a serious medical condition, and this condition is validated by a hospital or licensed California physician (in English)
- The Student contacts in time our chair (Donna Dulo) and Professor and describes the situation and provides all the needed proofs

Key ingredients of ML

- Current ML is: half Math, half Programming

Key ingredients of ML

- Current ML is: half Math, half Programming
  - **Math**: for research and design of ML algorithms

Key ingredients of ML

- Current ML is: half Math, half Programming
  - **Math**: for research and design of ML algorithms
  - **Programming**: usage and tuning of ML algorithms

Key ingredients of ML

- Current ML is: half Math, half Programming
  - **Math**: for research and design of ML algorithms
  - **Programming**: usage and tuning of ML algorithms
- Hopefully we could touch on both a little

Github

- Course page: `https://github.com/fatheral/ml-intro-course`
- The professor's lectures are uploaded there

Takeaway notes

1. Please go through all the materials of **Module 0**

Takeaway notes

1. Please go through all the materials of **Module 0**
2. Please introduce yourself

Thank you!