Neural Networks and Deep Learning – Spring 1404

Instructors   Behnam Bahrak (bahrak@gmail.com)

Resource   Hand on Machine Learning Book from chapter 10 onwards

Syllabus
- Multi Layer Perceptrons
- Convolutional Neural Networks
- Rnn for time series
- Nlp with attention and transformers
- Autoencoder, gan, diffusion
- Reinforcement learning and DQN

Announcements   Official announcements are made through Teams **only**.

Grading   Your final grade out of 20 is calculated as follows:
- 4 for Midterm and Final exam
- 6*2 for Assignments
- 4 for final Project

Exams   One final exam is scheduled at the times announced before. Please note that according to

the university law, your presence at the final exam is **mandatory** for the course to be recorded in your transcript.

Assignments

There will be 6 assignments and a project throughout the course. You should do them **individually** or in a group of **maximum 2 students**. If done in a group, each of the members should be able to answer the questions asked about that assignment, or their score will decrease. You can change your group for each assignment, but all of the members for the assignment should be specified when it is about to be delivered.

Late Policy

- For every 1 day delay, there will be a 10% penalty on the Assignment final score.
- You will have a total of 6 days grace period.
- The final project will not be accepted after its initial deadline i.e. there will be no late and grace policy!

Cheating Policy

Your work is considered cheating if:

- You use the ready-made code available on the internet as a solution.
- You use someone else's code.
- You mistakenly upload someone else's code instead of your own!
- Copy the answers generated by Chat GPT without understanding

Penalties for cheating, especially to prevent the spread of cheating, are considered in this course as follows:

- Cheating in an assignment results in a 100% negative score for that assignment for each student involved, whether they are the cheater or the cheated upon;
- Cheating may be detected at any time during the term. If you have once performed an unacceptable act and have not been caught immediately, it does not mean that this check will never occur.
- Cheating in exams is subject to educational regulations and may result in the subject being referred to the educational committee and ultimately the disciplinary committee.

Environment   Jupyter Notebook/JupyterLab

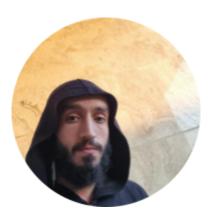**Telegram Group**   Telegram group link

Staff:

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