## NATIONAL TECHNICAL UNIVERSITY OF UKRAINE "IGOR SIKORSKY KYIV POLYTECHNIC INSTITUTE"



# Computer Vision

The Programming Assignment | Autumn, 2024





## Getting Started with Deep Learning

 $\hbox{``Education is only a ladder to gather fruit from the tree of knowledge, not the fruit itself."}$ 

- Albert Einstein (1879 - 1955)

#### Prerequisites:

- 1. An understanding of fundamental programming concepts in Python 3 such as functions, loops, dictionaries, and arrays.
- 2. A familiarity of Pandas datastructures.
- 3. An understanding of how to compute a regression line.

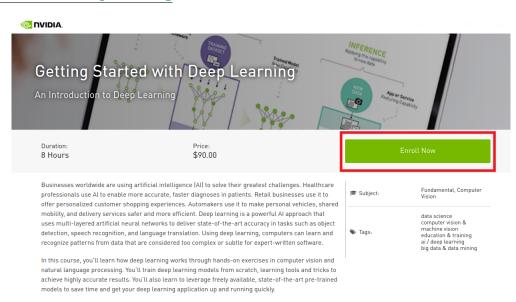
### NVIDIA account

Create an account with your work email address in order to obtain access to the NVIDIA Deep Learning Institute online course for FREE. To do this, follow this link: <a href="learn.nvidia.com/join">learn.nvidia.com/join</a>.

## Assignment

Follow the link below and push **Enroll Now** button:

#### Getting Started with Deep Learning



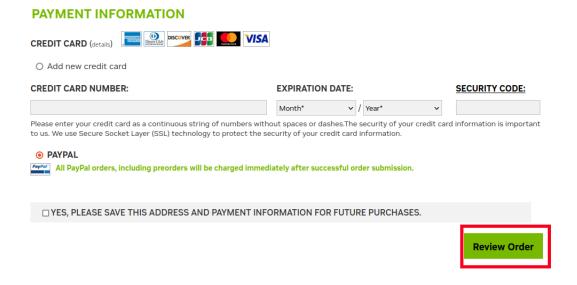
1. Click on **Enter Promo Code** and fill in the field (ask the teacher):

 ${\tt DLITEACHxxxx\_xx\_xxx\_xx}$ 

2. Also, fill in the fields that are marked by red colour in the image below:



3. Leave the payment information field blank (if asked to mark any option, you may continue with the Paypal option):



Upon successful completion of the assessment, you'll receive an NVIDIA DLI certificate to recognize your subject matter competency and support your professional career growth.

#### By participating in this course, you will:

- 1. Learn the fundamental techniques and tools required to train a deep learning model.
- 2. Gain experience with common deep learning data types and model architectures.
- 3. Enhance datasets through data augmentation to improve model accuracy.

- 4. Leverage transfer learning between models to achieve efficient results with less data and computation.
- 5. Build confidence to take on your own project with a modern deep learning framework.

#### [Evaluation]

The programming assignment is worth a total of 30 points.

### <u>Submission</u>

The assignment is considered successfully completed and credited to the maximum score (30 points), if you finished it before the deadline and received a certificate. To confirm the successful completion of the assessment, please, leave the link on your certificate in a .txt file then upload it at https://cloud.comsys.kpi.ua/s/EixSSNw94YXJW9z

Please, give the name to the .txt file in this format: First name Last Name\_Group.pdf

Deadline: before 11:59 PM, Nov 15