

Applied Deep Learning for Computer Vision with PyTorch (ADLCVP)

Syllabus and Structure

1. Lightning Fast Python Primer
2. Package Managers and Virtual Environments
3. Jupyter Notebook and Colab
4. Numpy
5. Scikit-Learn
6. OpenCV
7. Matplotlib and Seaborn
8. TSNE and Umap
9. Web Scraping
10. PyTorch 1 (Intor, CNN)
11. Tensorboard
12. PyTorch 2 (Autoencoder, Unet)
13. PyTorch 3 (Resnet)
14. PyTorch 4 (GAN with attention)
15. tmux, ssh, scp, sshfs, glances, htop, nvidia-smi

Goal

After taking this workshop you should be:

- Familiar and aware of the tools that are used in Computer Vision
- Able to develop neural networks in PyTorch
- Capable of knowing the right tool for the job

Protocol

- This is an applied workshop so we won't be explaining the theory behind some of the things we cover.
- Please don't ask questions during the lecture. Save your questions till the end. There will be a 10 minute QnA session.
- Recordings of the lecture will be available afterwards on the CVL PIEAS YouTube channel. (Link: tinyurl.com/cvlpieas)