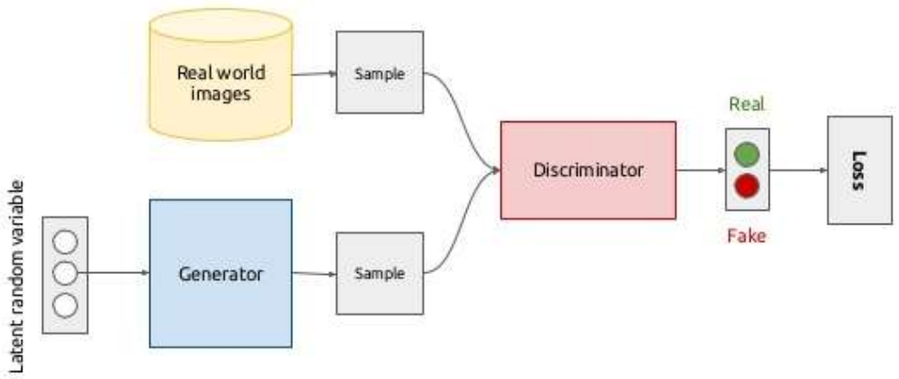

Advanced Deep Learning for Computer vision (ADL4CV) (IN2364)

Welcome to the Advanced Deep Learning for Computer Vision course offered in SS20.

Lecture

Mondays (10:00-11:30) - Seminar Room (02.13.010), Informatics Building

Until further notice, all lectures will be held online

Lecturers: Prof. Dr. Laura Leal-Taixé and Prof. Dr. Matthias Niessner.

ECTS: 8

2V + 3P

Due to covid-19, all lectures will be recorded!

Practical

Wednesdays (14:00-15:30) - Seminar Room (02.09.023), Informatics Building

Tutors: Tim Meinhardt, Maxim Maximov, Ji Hou and Dave Zhenyu Chen

The practical part of the course will consist of a semester-long project in teams of 2. There will be weekly presentations of the projects throughout the semester.

Lecture

- Introduction to the course and projects
- Neural network visualization and interpretability
- Similarity Learning
- Attention and transformers
- Graph neural networks
- Autoencoders & VAE
- Generative models I
- Generative models II

Practical sessions

- 24.04 - Introduction: presentation of project topics and organization of the course
- 04.05 - Project assignment
- 11.05 - Abstract submission deadline at midnight
- 08.06 - Project Presentations Group 1
- 12.06 - Project Presentations Group 2
- 06.07 - Project Presentations Group 1
- 10.07 - Project Presentations Group 2
- 20.07 - Report submissiond deadline (noon)
- 24.07 - Final poster session 14.00 - 16.00

Exam

tba

Slides

You can now download the slides in PDF format:

- Slides

Prerequisites

- Introduction to Deep Learning (I2DL) (IN2346)
- Strong mathematical background: Linear algebra and calculus.
- Previous knowledge of **Python** is mandatory.
- Previous knowledge of **PyTorch** is highly recommended.

Moodle

We use Moodle for discussions and to distribute important information. Please check the **News and Discussion** boards regularly or subscribe to them. The slides and all material will also be posted on Moodle.

Contact us

If you have any questions regarding the organization of the course, do not hesitate to contact us at: adl4cv@dvl.in.tum.de

For questions on the syllabus, exercises or any other questions on the content of the lecture, we will use the Moodle discussion board.

People

Laura Leal-Taixé

Matthias Nießner