# GITHUB LINKLIST

LINKS FOR YOUR SELF-STUDY

1. https://github.com/schutera/Tutorial-1-Backpropagation-and-an-Introduction-to-Tensorflow
2. https://github.com/schutera/Tutorial-2-Transfer-Learning-with-Tensorflow-for-Object-Classification
3. https://github.com/schutera/Tutorial-3-Semantic-Segmentation-with-U-Net
4. https://github.com/schutera/Tutorial-4-Deep-Q-Reinforcement-Learning-with-the-OpenAI-gym
5. https://github.com/schutera/Tutorial-5-Generative-Adversarial-Neural-Networks-on-MNIST
6. https://github.com/schutera/Tutorial-6-Recurrent-Neural-Networks-for-Language-Modelling-and-Generation

# How you will be examined

**Deadline 22.12.2022**

**Project**

- **(50) Software Contribution** in the form of a GitHub Repository (or similar)
  - Set up a repository and make it easy to deploy your software (env, requirements.txt, host on binder, etc.)
  - Solve the technical problem
- **(40)** Final **report** on your Software Contribution (max 2 pages).
  - Motivate the underlying topic and data
  - Overview of your novel concept proposal to solve the software task (This might include methods, processes)
  - Discussion of your findings and an outlook on your concept and how in future one should proceed in your opinion

**Tutorials**

- **(10) Summary of each tutorial** (2-4 sentences)
  - Describe the key concepts, learnings and tasks in the notebook.
  - Handed in together with project report.

# Recommender System for Movies

# THE TASK

## Data

https://grouplens.org/datasets/movielens/100k/

*This data set consists of:*

** 100,000 ratings (1-5) from 943 users on 1682 movies.*

** Each user has rated at least 20 movies.*

** Simple demographic info for the users (age, gender, occupation, zip)*

## Focus

*(Jan / Feb) Performance – Explainability – Data Analysis*

*(Mar / Apr) Performance – Data Analysis – Explainability*

*(May / Jun) Explainability – Performance – Data Analysis*

*(Jul / Aug) Explainability – Data Analysis – Performance*

*(Sep / Oct) Data Analysis – Performance – Explainability*

*(Nov / Dec) Data Analysis – Explainability – Performance*

# Jump Start

You do not need to implement everything from scratch. For example have a look at:

https://keras.io/examples/structured_data/collaborative_filtering_movielens/

Don‘t forget to credit your source and make clear to us what your contribution is!