



# 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**

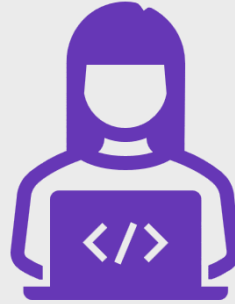
- **(10) Summary of each tutorial** (2-4 sentences)
  - Describe the key concepts, learnings and tasks in the notebook.
  - Handed in together with project report.

## 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

Recommender  
System for Movies

# THE TASK

# 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/](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!