

# Introduction

## (Neural Networks Implementation and Application Tutorial)

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# Overview

- Introduction
- Requirements
- Materials
- Assignments
- TODO (lecture content)
- Current assignment
- QA

# Hello

Who am I?

# Hello

Who am I?

Who are you?



# Introduction

Choose and answer at least two questions:

- On scale from 1-10 how proficient are you in programming and mathematics?
- What topics of Neural Networks excite you the most?
- What topics of Neural Networks excite you the least?
- TODO

# Requirements

## Tutorial Requirements (exam admission)

- 60% of mandatory points (~10 assignments, 10 points each)
- Tutorial points only for exam admission (no final grade influence)

## Tutorial Bonus Points

- ~2pts for extra exercises in the assignments
- 1pt for answering a question in a tutorial
- TODO pt for fixing errors in tutorial presentations
  - ▶ [github.com/zouharvi/uds-nnia-tutorial](https://github.com/zouharvi/uds-nnia-tutorial)
- Presenting a solution to the assignment (~5 points)
  - ▶ Let individual tutors known if you wish to present (in the respective tutor's channel)
  - ▶ Everyone can present *at most* once

## Final Project

- TBD

## Transfer from last year

- Possible
- Do project and exam

# What's available

- Lectures by Prof. Klakow (recorded)
- Tutorials (not recorded, but allowed for private sharing)
- Corrected homework
- Consultations
  - ▶ Only in specific cases
  - ▶ By default **no** email and **no** personal chat
  - ▶ Ask questions during the lecture / tutorials
- Public forum (please use Piazza) (link TODO)
  - ▶ Ask questions
  - ▶ Other students will also benefit from the answers
  - ▶ You can answer someone else's issue

# Assignments

- Mandatory groups of 2
- Usually 2 exercises per assignment + a possible bonus question
- Jupyter notebook templates
  - ▶ Assignment + solution in the same notebook
  - ▶ Can use Google Colab or local runtime
  - ▶ Write solutions in Python files and import them
  - ▶ Submitted notebook must only contain your analysis and outputs
- Only one submission per group
  - ▶ Submit through Teams



# Dates / Times

- Lecture: Tuesdays 14:15-15:45
- Tutorials:
  - ▶ Vilém: TBD
  - ▶ Noon: TBD
- Assignments
  - ▶ Released (usually) TBD (available in Teams)
  - ▶ Deadline (next) TBD (submit in Teams)
- Exam: TBD
- Project Deadline: TBD

# Tutorial Content

- Review of the topics covered in class
- Presentation of the past assignment
- Discussing doubts in current assignment

# Current Homework

- TBD

# Linear Algebra Basics

TODO

# Numpy Basics

TODO

# Resources

- ① Course Website:  
[lsv.uni-saarland.de/neural-networks-implementation-and-application-winter-2021-2022-2](https://lsv.uni-saarland.de/neural-networks-implementation-and-application-winter-2021-2022-2)
- ② Piazza: <https://piazza.com/> (TODO)
- ③ Tutorial repository [github.com/zouharvi/uds-nnia-tutorial](https://github.com/zouharvi/uds-nnia-tutorial)
- ④ Lecture & tutorial teams channels