

Introduction

(Neural Networks Implementation and Application Tutorial)

Vilém Zouhar, Noon L. S. Pokaratsiri Goldstein

28th November 2021

Overview

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

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
- 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 8:30-10:00
- 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
- ② Piazza: <https://piazza.com/> (TODO)
- ③ Tutorial repository github.com/zouharvi/uds-nnia-tutorial
- ④ Lecture & tutorial teams channels