Administrative Regulations
Elements of Data Science and Artificial Intelligence

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November 1, 2020

Agenda

- Goals of this Lecture
- Administrative regulations

Goals of this Lecture

1. Top-Down Introduction to the field "Data Science and Artificial Intelligence" (DSAI); rather than bottom-up as in our undergrad lectures
2. develop basic understanding of typical application scenarios in DSAI
3. develop basic understanding of typical methods in DSAI
4. get started with important tools, e.g. Python
5. in summary: develop a good feeling for what DSAI is about

Language, CMS, and Lecture

- Language:
    - all materials in English, lectures and tutorials in German
- CMS:
    - https://cms.sic.saarland/edsai20/
    - please register
    - you do not have to register for LSF **yet**
    - all material and hand-ins will be handled through CMS **only**!
- Lecture:
    - Mondays 10:15–12:00
    - Thursdays 12:15–14:00
    - streamed on Youtube
    - see calendar:
      https://cms.sic.saarland/edsai20/termine/calendar/index
    - Slides and notebooks available in CMS before every lecture:
      https://cms.sic.saarland/edsai20/materials/

Virtual Lectures

- the lectures will be live and streamed on Youtube
- Time: original lecture slot
- video recording of the lecture still available afterwards
- there will be additional feedback channels for questions during the live lecture

  e.g. prepared surveys and student questions, short consultation hour with the Prof

Overview: Tools for virtual teaching

| Concept	Tool	Link
Lecture	Youtube-Livestream & frag.jetzt	`youtube.com/user/jensdit` `frag.jetzt/participant/room/79834810`
Lecture breaks		
Tutorial	Discord	`discord.com` (invitation via CMS)
Forum		
Materials	CMS	`cms.sic.saarland/edsai20`
Office hours		`gather.town/app/RVfxcmtmKs3CAvSS/EDSAI`
Collaboration	Gather.town	
Lecture breaks		You will find the link in the CMS, too.

Fallback systems:

Zoom, MS Teams, BBB, DHL, ...

Youtube Livestreaming

- all lectures are streamed live on Youtube (the stream has a latency of about 10 seconds)
- Advantage for you: no login necessary
- timeshifted viewing and archived stream available

Discord

- `discord.com`
- This is a tool from the gamer scene, which supports screen sharing but also video conferencing
- For this you must register once in Discord
- You will receive an invitation to the "Big Data Engineering" server in Discord
- Within the "commands" text channel write ".rank edsai"
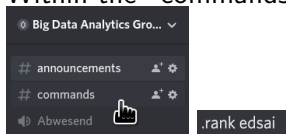
- Like that you join the lecture and will be able to see the "Elements of DS&AI" category
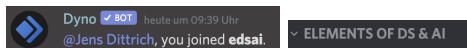
Gather.Town

- `gather.town/app/RVfxcmtmKs3CAvSS/EDSAI`
- This is a virtual class room which you can use for collaboration
- You will be able to walk around in this virtual room and meet people to form study groups
- During office hours, the tutors will join the gathering. Approach them if you have questions!

CMS
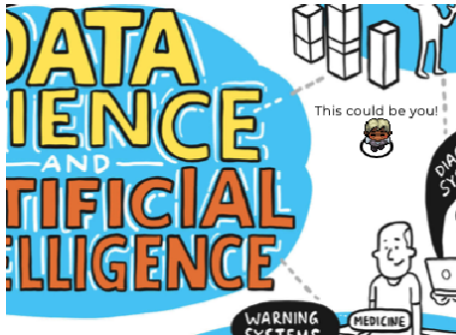
- Link to CMS: `https://cms.sic.saarland/edsai2020/`
- all slides as pdf **even before the lecture** in CMS/Materials
- extensive video collection from the old lecture on

Professors (and their research areas)

- Prof. Dr. Vera Demberg (Natural Language Processing)
  `https://www.uni-saarland.de/lehrstuhl/demberg/members/team.html`
- Prof. Dr. Jens Dittrich (Big Data & Data Science)
  `https://bigdata.uni-saarland.de/people/dittrich.php`
- Prof. Dr. Jörg Hoffmann (Artificial Intelligence)
  `http://fai.cs.uni-saarland.de/hoffmann/`
- Prof. Dr. Bernt Schiele (Machine Learning)
  `https://www.mpi-inf.mpg.de/departments/computer-vision-and-machine-learning/people/bernt-schiele/`

Tutors (and their roles and research areas)

- Supervising Ph.D./Postdoc Tutors:
    - Moritz Böhle (Tutor in chief, CMS, Python, Vagrant, VirtualBox, Machine Learning)
    - Joris Nix (Big Data)
    - Yue Fan (Machine Learning)
    - Thorsten Klößner (Artificial Intelligence)
    - Dr. Frances Yung (Natural Language Processing)
- Student Tutors:
    - Doreen Osmelak
    - Lukas Wilde
- see https://cms.sic.saarland/edsai20/tutors

Exercises

- assignment available either after Thursday's or Monday's lecture.
- the time you have to solve the assignments will be specified on the individual sheets (most often, one week)
- hand-in of source code: only the specific Jupyter cell as text file (will be specified in detail on each assignment)
- you must hand-in in groups of three students, only one of you has to hand-in but must write all three names and immatriculation numbers on the first page of your solution
- during the semester you may have at most two assignment sheets with 0 points
- on average you must obtain 50% of the points in total throughout the semester

Important

All hand-in via CMS **only**, emails/printouts/etc **will not** be considered.

Tutorials, Exams, Certificates

- Tutorials:
    - Mondays, Tuesdays, and Wednesdays, see CMS
    - please vote for a tutorial in CMS
- Exams:
    - Final exam: Günter Hotz lecture hall, E2.2, room 0.01, on 11th of Feb. 9am - 1pm
    - Re-exam: Günter Hotz lecture hall, E2.2, room 0.01, on 22nd of March 9am - 1pm
- Certificates:
    - Grade = 100% Final exam or Re-exam (better grade counts)
    - no printed certificates, grades will be handled electronically
    - Exceptions: Erasmus, non-CS programs, etc. (if you are unsure, ask us)

Python

- Don't panic (if you never programmed anything before)!
- Python is the most important software tool in DSAI.
- You will need it just everywhere.
- You will learn very basic Python in this lecture from scratch.
- Note: Python 3.x **not** Python 2.x!
- Jupyter Notebooks
- we recommend that you use vagrant and VirtualBox to run Python
  https://cms.sic.saarland/edsai20/4/Instructions
  (the first exercise will be just about learning Vagrant)