

Administrative Regulations

Elements of Data Science and Artificial Intelligence

Prof. Dr. Jens Dittrich

bigdata.uni-saarland.de

October 21, 2021

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/edsai2122>
 - please register until the 28th of October
 - you do not have to register for LSF **yet**
 - all materials and submissions will be handled through CMS **only!**
- Lecture:
 - Mondays 10:15–12:00
 - Thursdays 12:15–14:00
 - Held in E1.3 lecture hall 002 (with exceptions) + streamed on Youtube
 - see calendar: <https://cms.sic.saarland/edsai2122/termine/calendar/index>
 - Slides and notebooks available in CMS before every lecture:
<https://cms.sic.saarland/edsai2122/materials/>

Lectures

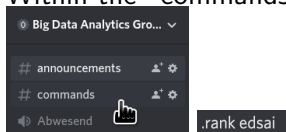
- take place in E1.3 lecture hall 002 **with the exception of Prof. Dittrich's lectures (only Youtube)**
- the lectures will be simultaneously livestreamed on Youtube (the stream has a latency of about 10 seconds)
- livestream recording of the lecture still available afterwards
- there will be additional feedback channels for questions during the live lecture
- e.g. prepared surveys and student questions, short consultation hour with the Prof
- optionally additional Zoom livestream for some lectures (see calendar/materials entry)
- questions can be asked online via Discord (or Zoom if applicable)

Overview: Tools

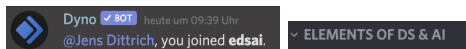
Concept	Tool	Where
Lecture	Lecture hall Livestream	E1.3 lecture hall 002 youtube.com (links: CMS calendar)
Tutorial	Seminar room Discord (if online)	see CMS after assignment discord.com (invitation via CMS)
Office hour	Seminar room	E1.1 SR 3.06, Friday 16:00
Forum	CMS	https://cms.sic.saarland/edsai2122/
Materials	CMS	https://cms.sic.saarland/edsai2122/

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



- Link to CMS: <https://cms.sic.saarland/edsai2122/>
- 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:
 - Thorsten Klöbner (Contact person, Artificial Intelligence)
 - Joris Nix (Big Data)
 - Yue Fan (Machine Learning)
 - Dr. Frances Yung (Natural Language Processing)
- Student Tutors:
 - Lukas Wilde
 - Leonard Neis
 - Navdeppal Singh
 - Moritz Ditter
 - Benedict Böttger
- see <https://cms.sic.saarland/edsai2122/tutors>

Exercises

- assignment available after Thursday's lecture
- you have one week to complete the assignment (unless stated otherwise)
- upload your submission as a .zip archive to the CMS containing one pdf for the regular exercises and only the .pynb file(s) for the programming exercises
- you must submit in groups of two or three students, only one of you has to hand-in but must write all 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:

- Tutorials in presence: Monday, Tuesday and Friday (2x), see CMS
- Online tutorial: Thursdays on Discord, see CMS
- please set your tutorial preferences in the CMS until the 28th of October

■ Exams:

- Final exam: Günter Hotz lecture hall + E1.3 lecture hall 002 (if needed), on 24th of Feb. 10am - 1pm
- Re-exam: Günter Hotz lecture hall, on 17th of March 2am - 5pm

■ 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://edsai21.cs.uni-saarland.de/t/
how-to-set-up-the-virtual-machine-vm/47`
(the first exercise will be just about learning Vagrant)