

Einführung in die künstliche Intelligenz

Prof. Dr. Matthias Schott





Lecture Details

- Time: 10:15-12:50
 - Only 13 lectures for the full term - it will be a though ride!
- Moodle link of this lecture
 - <https://lms.uni-mainz.de/moodle/course/view.php?id=46042>
 - Slides and exercises will be available
 - You need to subscribe to this course
- Virtual Course
 - The lecture will give via ZOOM
 - You can access the Zoom-Meeting via the following link
 - <https://us02web.zoom.us/j/89083627169?pwd=TnJSeENwdUlodnZKNFhJRU1uRm5mUT09>
 - Meeting-ID: 890 8362 7169
 - Passwort: 80370
 - The lecture videos will be (most likely) recorded and be available for 1 week
 - However, I strongly encourage you to participate during the life-lecture
 - A link to the videos will be provided on moodle

- Typically some computer science students have issues with their data-protection and the usage of Zoom
 - We have a special allowance of the university administration to use Zoom in special cases
 - I consider it important to give you uninterrupted lectures with the possibility for you to participate
 - My zoom settings uses «EU-clusters»
 - <https://www.datenschutz-guru.de/zoom-ist-keine-datenschleuder/#update23>
 - You DON'T have to install a Zoom App on your laptop to participate!
 - You DON'T have to use your microphone nor your video camera
 - If you still feel uncomfortable using ZOOM, then feel free to watch the lecture recording on Panopto.



Exercises

- Three exercise groups
 - Dienstags 14:15-15:45 (Olivera Vujinovic)
 - Donnerstags 15:15-16:45 (Peter Krämer)
 - Freitags 14:15-15:45 (Michele Siemund)
- Will be organized via MS Teams
 - Please fill out the survey on Moodle by Friday (16th of April)
- Exercises are supposed to be handed in each Wednesday BEFORE the next exercise class via Moodle
 - You can hand in exercises in groups of 2-3 people
 - You have to get at least 50% in order to be qualified for the exam



AI Challenge (1/2)

- You / your exercise team has to participate at the AI Challenge (see below) and beat at least «Playwr-Random-Guy»
- Task: Write your own AI that plays "5 Wins"
- The game
 - Similar to 4-Gewinnt, however with 5-stones-in-a-row-win and a play-field that 11 fields wide and 8 fields high
 - Additionally: Every player has ONCE the right to flip the board by 180 degrees - this will cause the fall down accordingly! Two consecutive flips are not allowed.



AI Challenge (2/2)

- Infrastructure:
 - Your program must be called by our team name
 - The txt-file "Table.txt" contains the current information of the field. Empty fields are labelled E, yellow coins with Y and R coins with R
 - The columns are labelled with 1,2,3,4,...,11
 - Your program needs to create a text-file «TeamNameMove.txt» where you save your next move
 - If you try to place a coin in a full column, your operation will be ignored and your opponent can add a coin again
 - Your program will be terminated after 5s of run-time. If no file «TeamNameMove.txt» exists, your move will be ignored

 - By the end of the term, we make a tournament. The top three teams will win «To be seen»

- Literature
 - Künstliche Intelligenz: Ein moderner Ansatz - Peter Norvig und Stuart Jonathan Russell
 - Artificial Intelligence: A Modern Approach - Peter Norvig und Stuart Jonathan Russell
- Slides/Plots: There are many superb lectures already online - and I dont want to reinvent the wheel. Hence my slides are based on the work of others (who provide great lectures):
 - Many figures are taken from the above-mentioned book.
 - First chapters are fully based on presentations by Prof. Gerhard Lakemeyer (Aachen), Dr. Jana Koehler, Prof. Joschka Boedecker, Wolfram Burgard, Frank Hutter, Bernhard Nebel (Freiburg)
 - Later chapters are also based on lectures by Frank Puppe (Würzburg)