Methods of AI

Tutorial

Meetings

Wednesday: 31/E05 AVZ 12-2pm

Friday: 93/E31 2-4pm

Who are we?

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Date of the tutorials	Topic of previous lectures	Topic of Tutorials/Paper Category
01.11./03.11	Local search	Introduction
08.11/10.11	Local search/advanced CSPs	Search
15.11./17.11	Advanced Theorem Proving	CSPs
22.11/24.11	Planning	Inference and Theorem Proving/planning
29.11/01.12	Knowledge Representation	midterm preparation
06.12/08.12.	Recap/midterm exam	Planning/Knowledge Representation

Date of the tutorials	Topic of previous lectures	Topic of Tutorials/Paper Category
13.12./15.12.	Reasoning over space and time	Planning
20.12./22.12.	Uncertain Reasoning and Learning Basics	Time and Space
10.01./12.01.	ML 1: SVMs and Random Forests	Non-classical Inferences, Vagueness and Uncertainty/Machine Learning
17.01./19.01.	ML 2 : Reinforcement Learning	Cognitive Architectures
24.01./26.01.	Cognitive Architectures	Cognitive Architectures /Games
31.01./02.02.	Games Advanced	Final Preparation
(07.02./09.02.)	Recap/Final exam	Games

Vips

Vips are not mandatory , however, they give you an overview of what questions will be asked in the exams. In fact, around 50% of them will be used as questions, so learn them by heart!

If you have questions regarding the vips, write us a message or post into the forum.

Programming Projects

1. Create a Gridworld with goals, obstacles, and an agent that is theoretically able to move through it (roughly during the winter break)
2. Use the knowledge gained in the lecture to create an autonomous agent that can move through your world from task 1 intelligently

Programming language: Python

https://www.codecademy.com/learn/learn-python
It's possible to use other programming languages. Write us an email!

Programming Projects

Python is the go-to programming language in many fields of science, so a good opportunity to learn it here!

It is object-oriented and very similar to java.

You are allowed to use libraries from python. This is however not expected and we will grade your project based on the expectation that you have learned python from scratch.

Presentations

- Length: 45min (equal time distribution for all group members)
- + 15 min discussion

In total 60 minutes presentation. Afterwards questions regarding the lecture and repetition.

Take a look at the document on studIP on how to prepare a good presentation!

Evaluation:

Informative but not overloaded slides

Free presentation, address us the audience instead of your notes!

Add some questions or statements to start a discussion at the end of your presentation

Don’t panic!

If you ever feel like you have not understood an essential part of the lecture or if you need help understanding your paper or a part of the programming task: write us a mail or message! We will try to get together with you and help you out as much as possible!