COURSE DETAIL

INTRODUCTION TO ARTIFICIAL INTELLIGENCE
Country Germany
Host Institution Technical University Berlin
Program(s) Technical University Berlin
UCEAP Course Level Upper Division
UCEAP Subject Area(s) Computer Science
UCEAP Course Number 121
UCEAP Course Suffix D
UCEAP Official Title INTRODUCTION TO ARTIFICIAL INTELLIGENCE
UCEAP Transcript Title INTRO TO AI
UCEAP Quarter Units 5.50
UCEAP Semester Units

3.70

Course Description

In this course, students gain an integrative understanding of the field of Artificial Intelligence (AI), with equal emphasis on data-driven AI (especially machine learning) and model-based AI (especially planning and reasoning). They come to understand AI from the perspectives of decision theory, machine learning, optimization, and classical problem solving. Students learn to independently implement and understand core algorithms from these areas and can identify appropriate problem formulations and AI algorithms for a given application. Course topics include problem formulations and algorithmic approaches from decision theory (including reinforcement learning, multi-armed bandits, control theory), machine learning, optimization, and inference, classical planning, and problem solving. The class also discusses fundamental and recurring algorithmic principles such as dynamic programming, optimization-based vs. sampling-based methods, and decision trees.

Language(s) of Instruction
German

Host Institution Course Number
41048

Host Institution Course Title
EINFÜHRUNG IN DIE KÜNSTLICHE INTELLIGENZ

Host Institution Course Details
https://moseskonto.tu-berlin.de/moses/modultransfersystem/bolognamodule/beschre...

Host Institution Campus

Host Institution Faculty

Host Institution Degree
Host Institution Department Institut für Technische Informatik und Mikroelektronik
Course Last Reviewed 2024-2025

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