Fuzzy Systems

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About me: Rudolf Kruse

Short CV

1979 Diploma in Mathematics (minor incomputer science) at TU Braunschweig

1980 Dissertation (Fuzzy Systems) , 1984 Habilitation (Data Analysis)

1984-1986 Full-time employee at Fraunhofer Institute (Artificial Intelligence)

1986-1996 Professor of computer science at TU Braunschweig

1996-2017 Professor of computer science at OVGU Magdeburg

Since 2017 (Active) Emeritus Professor at OVGU Magdeburg

Research Topics

Data Science and Computational Intelligence

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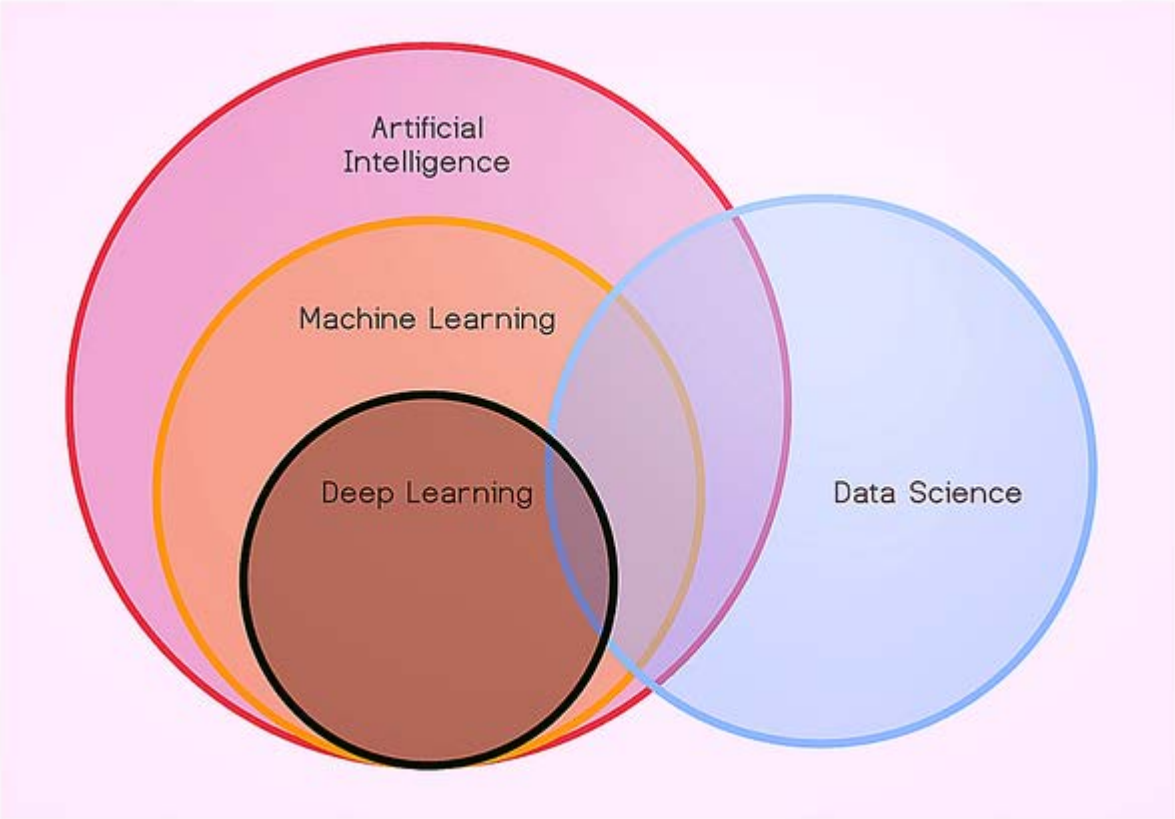
An „Intelligent“ System is a machine (or a program) that is making human perception and understanding available.

Lots of different methods (schools) were used for developing “Intelligent” Systems

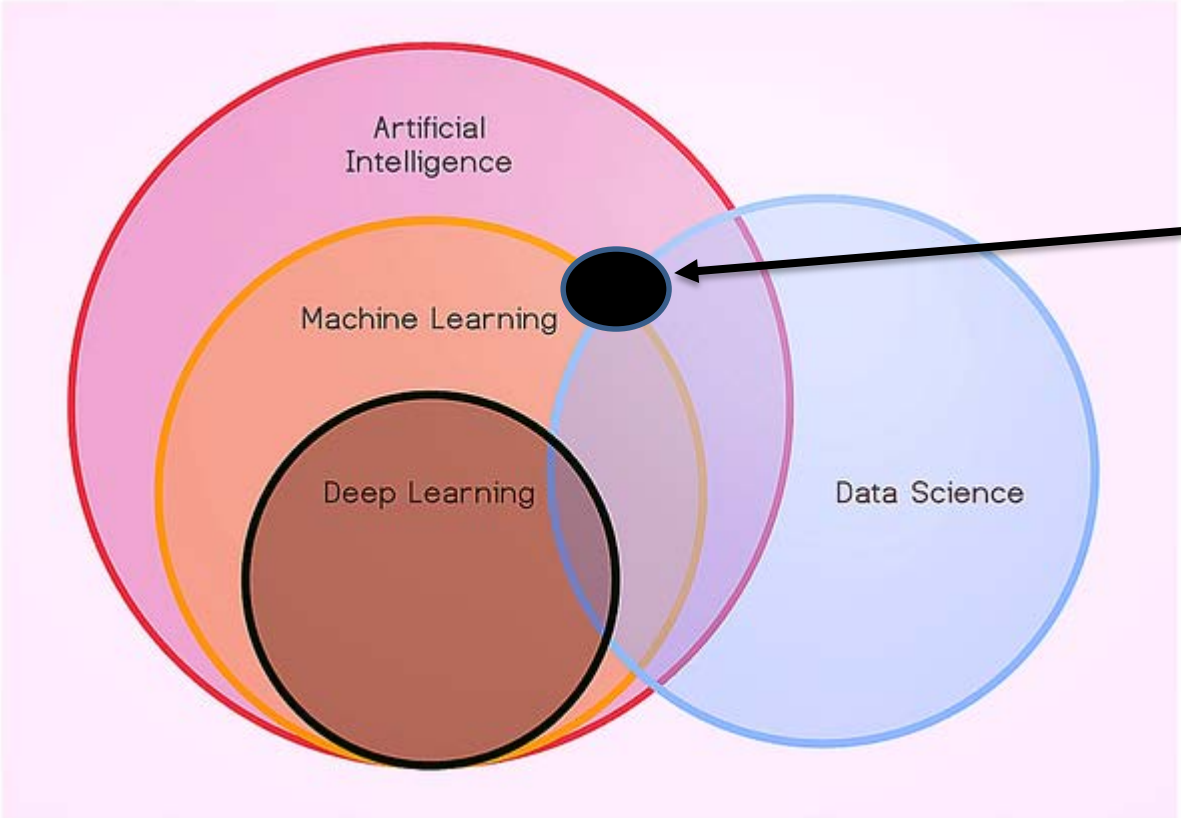
Knowledge-driven AI:
logics, rules, graphs,…

Data-driven AI: probability statistics, machine learning,…

Real Applications are in most cases hybrid systems: Several methods are used.



Methods for Developing „Intelligent“ Systems



About the lecture

Introduction

Fuzzy Logic – a multivalued logic

Fuzzy Set Theory

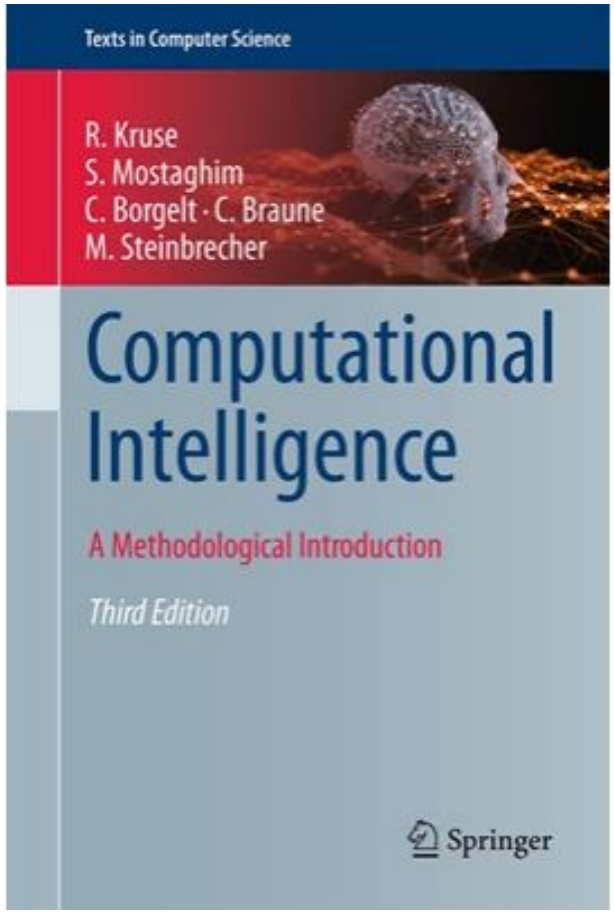
Applications in

- Control
- Approximate Reasoning
- Data Analysis

Learning Fuzzy Systems

New Book about Fuzzy Systems

(and also Neural Networks, Evolutionary Algorithms, etc.)



Download for free

http://www.computational-intelligence.eu/

About the Lecture

Lecture Fuzzy Systems

Time: Wednesdays 11:15 –12:45 from 6.4.22

Room: G29 -336

News: https://www.ci.ovgu.de/Teaching/SS2022/Fuzzy+Systems.html

Lecture Material on CiCloud:

- Weekly lecture slides as PDF
- Book about the course
- Assignment sheets for the exercises
- Videos and Streams

About the Tutorials

Mode of the online tutorials

- Active participation and explanations of your solutions
- The Tutor will call attention to mistakes and answer questions
- Pure ‘calculations’ of sample solutions is not the purpose

Exam or Certificate

- Contribute well in exercises every week,
- Present ≥ 2 solutions to written assignment during exercises.
- Tick off ≥ 66% of all written assignments,
- Pass written exam (120 min)