Basic data

Admission

Admission-free for EU citizens: Prospective students with university entrance qualifications from outside Germany upload their documents as described on ku.de/application by July 15.

Prospective students from outside the EU must also apply using uni-assist.de by July 15. Details at ku.de/application

Language of instruction: English

Today, communication in English is standard in science and in research and development departments in the industry. In many places, work is carried out in international teams and across countries and locations. In the Data Science degree program, the necessary English language proficiency is acquired informally and without additional effort. The only prerequisite is a school-level knowledge of English.

Recommended prerequisites

- You enjoy mathematics and logical thinking
- You have an interest in acquiring programming skills
- and in putting what you have learned into practice in various areas of application.

Images: KU, colourbox.de, AdobeStock - March 2025

Information

Further information about the degree program at
ku.de/ds

Information on the Mathematical Institute for Machine Learning and Data Science at
www.ku.de/en/mids

Information on studying at the KU at
www.ku.de/en/study-at-the-ku/learn-more-about-the-ku

For queries about the degree program, career prospects and the application process, please contact:

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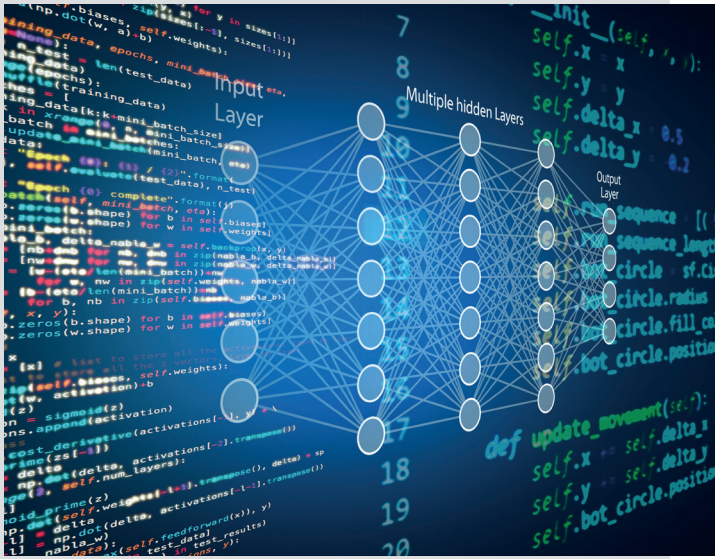
MIDS



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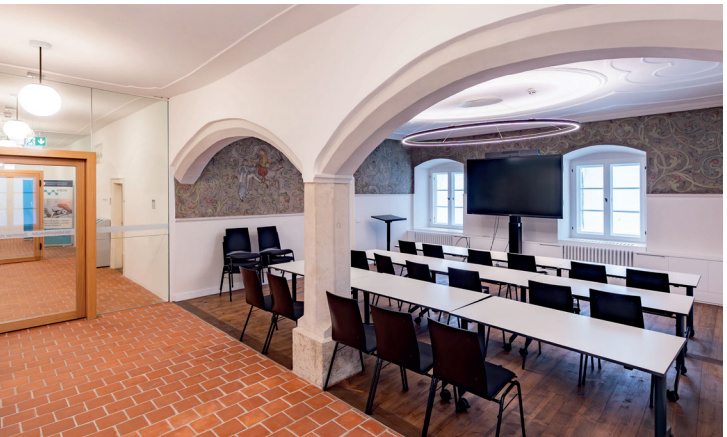

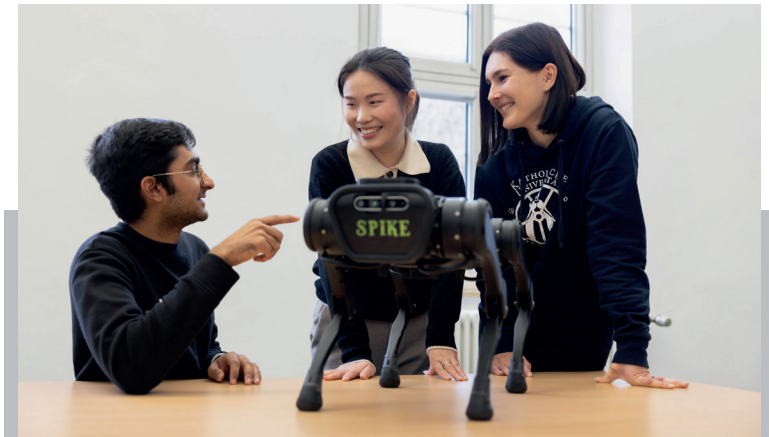

Katholische Universität Eichstätt-Ingolstadt

Bachelor of Science

Data Science

ku.de/ds

Data Science at the KU

Recognized top university
most popular university in Germany (StudyCheck 2021, 2022 and 2024)

Excellent staff-to-student ratio
personal mentoring for optimal academic success

Stand-alone degree program
designed from scratch with courses tailored to the program

Innovative & practice-oriented teaching
consistent incorporation of practical elements into theoretical contents

Ideal stepping stone to a career
excellent career prospects; internship at one of our numerous partner companies and institutions

Wide range of specializations
from theory to applications including the option of choosing a social science focus

Campus in the city of Ingolstadt
Great quality of life and numerous high-tech companies in town

International
Study in English with the option of a semester abroad at one of our many international partner universities

Our degree program

In today's digital world, data is abundant; the challenge is to analyze and exploit this data. Recent advances in artificial intelligence - e.g., in autonomous driving, speech recognition, and automated translation - show that modern machine learning methods are capable of discovering and harnessing hidden patterns and relationships in large amounts of data.

Features of the Data Science (DS) program

- You will learn the necessary basics of mathematics, statistics and computer science,
- get practical experience in cutting-edge methods for data analysis and machine learning (ML),
- apply these skills using modern software technologies,
- improve your English,
- choose from a number of specialization areas:
  - Applied Mathematics and Scientific Computing
  - Business Analytics and Operations
  - Digital Transformation of Society
  - Environmental Sciences
  - Finance and Economics
  - Machine Learning and Statistics

Program structure

1	Intro. Statistics	Intro. Programming	Information Systems	Linear Algebra I		Analysis for DS I
2	Hands-on ML and DS		Algor. & Datastruc.	Linear Algebra II		Analysis for DS II
3	Foundations of Data Science		Adv. Programming	Intro. Stochastics	Optimization for DS	Focus Area
4	Foundations of Machine Learning		DS Lab	Statistical Learning	Studium Pro	Focus Area
5	Internship		Ethics for Algorithms and Data	General Elective	General Elective	Focus Area
6	Bachelor's Thesis		Bachelor Seminar	General Elective	Focus Area	Focus Area

Career options

Well-trained data scientists are in high demand. Graduates of the program can work both methodologically (e.g. as a data scientist or as a software engineer) and strategically (e.g. as a data strategist) in areas such as

- finance,
- the IT industry,
- the automotive, and
- the biotechnology industry,
- as well as in startups and NGOs.

Furthermore, the program prepares students for a Master's degree with the option of a subsequent academic career in the fields of computer science, statistics, mathematics or in a field of application.