



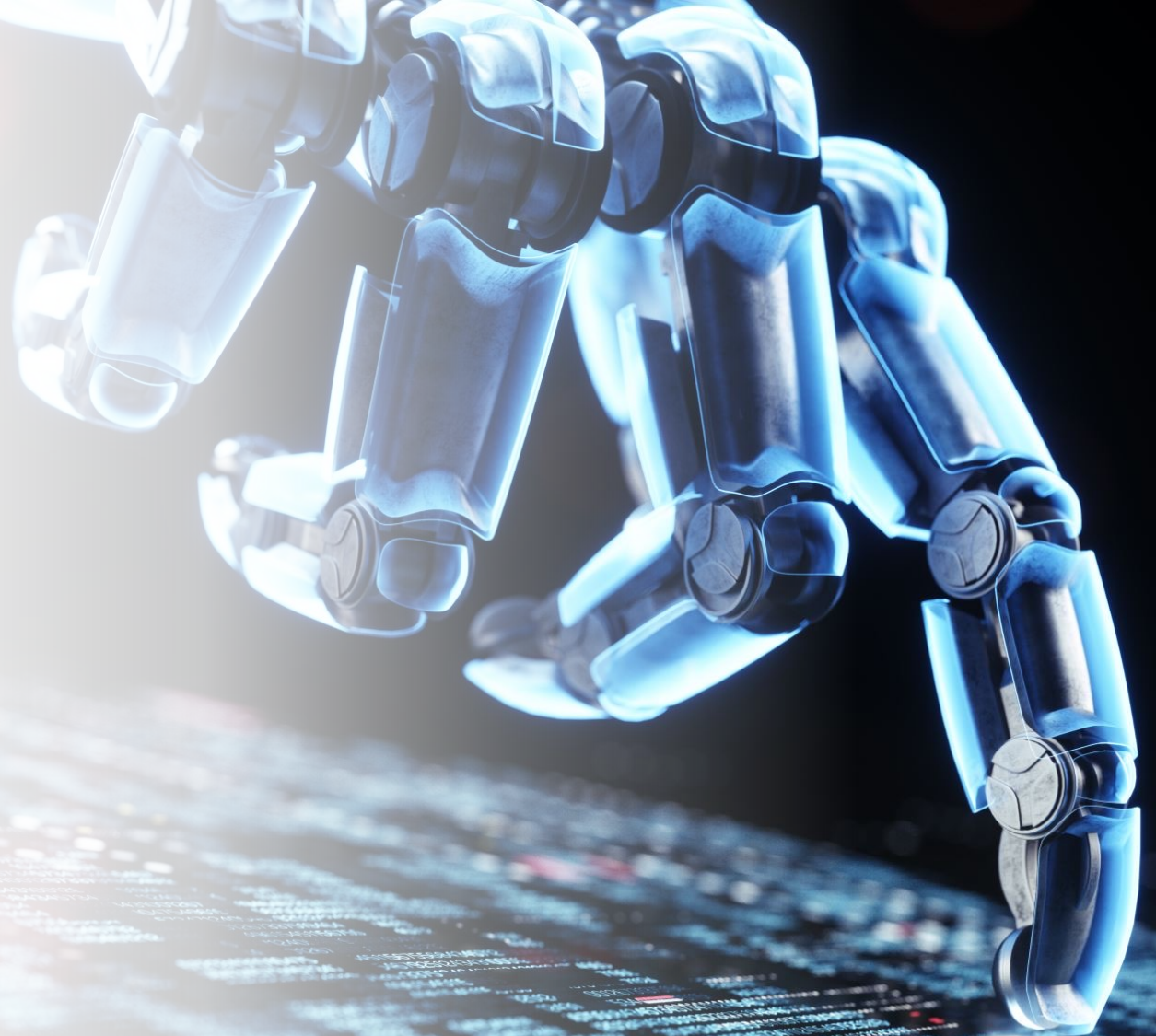
TUM
Master's
Days

MSc AI in Society

Info Session

TUM Master's Days

March 21st 2024

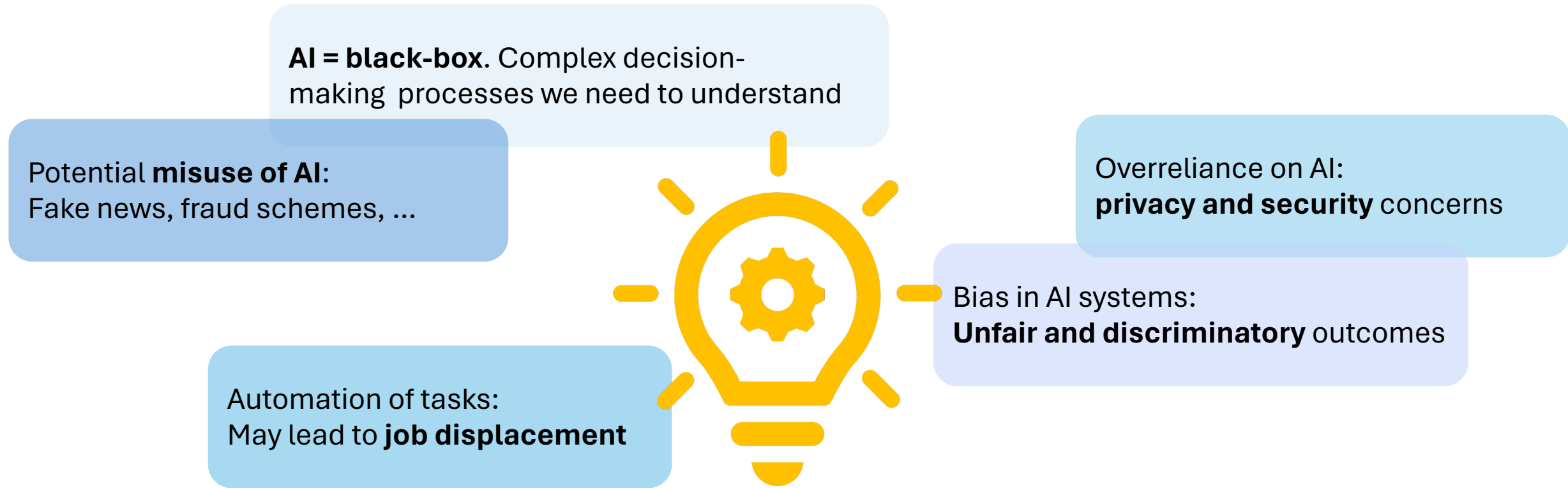




Agenda

- Artificial Intelligence: Challenges in Society
- What will I learn?
- Target Audience
- Comparison to similar study programs
- What jobs can I apply for later?
- Application procedure
- Your questions!

AI in Society: Current Challenges



We need:

- **responsible and ethical use of such technologies**
- **effective regulation and governance of AI**

What will you learn?



Technical side

- Data Science
- Machine Learning
- Natural Language Processing
- Human-AI Interaction
- Explainable AI
- Programming with Python



Social science side

- Legal aspects
- Policies, Regulation
- Governance
- Role of AI in societal contexts
- Instructional design of AI
(psychology of learning)

Bridging technical and
societal implications of AI

Semester 1	30 Credits	<div>Foundations of AI & Data Science</div> <div>(lecture) 9 Credits</div>	<div>Introduction to Programming & Data Processing</div> <div>(exercise) 3 Credits</div>	<div>AI in and for Society: Science, Technology and Society in the Digital Age</div> <div>(lecture) 6 Credits</div>	<div>Law, Governance and Regulation of Artificial Intelligence</div> <div>(lecture) 6 Credits</div>	<div>Psychology of Learning and Intructional Design of AI-based systems</div> <div>(lecture) 6 Credits</div>	
Semester 2	30 Credits	<div>Introduction to Deep Learning</div> <div>(lecture) 6 Credits</div>	<div>Deep Learning Demystified: Hands-on Deep Learning for Non-CS Majors</div> <div>(exercise) 3 Credits</div>	<div>Explainable AI — A Comprehensive Seminar on Transparent and Ethical AI</div> <div>(seminar) 6 Credits</div>	<div>Academic Competencies and Practical Skills</div> <div>(seminar) 4 Credits</div>	<div>Methods 1</div> <div>(exercise) 5 Credits</div>	<div>AI in Diverse Societies</div> <div>(lecture) 6 Credits</div>
Semester 3	30 Credits	<div>Natural Language Processing</div> <div>(lecture) 6 Credits</div>	<div>Human-AI Interaction</div> <div>(exercise) 6 Credits</div>	<div>Project Week</div> <div>(project) 6 Credits</div>	<div>Electives: AI in different domains of society</div> <div>12 Credits</div>		
Semester 4	30 Credits	<div>Master's thesis</div> <div>30 Credits</div>					

Curriculum: Electives



Study Plan M.Sc. "AI in Society"

Semester 1	30 Credits	Foundations of AI & Data Science (lecture) 9 Credits	Introduction to Programming & Data Processing (exercise) 3 Credits	AI in and for Society: Science, Technology and Society in the Digital Age (lecture) 6 Credits	Law, Governance and Regulation of Artificial Intelligence (lecture) 6 Credits	Psychology of Learning and Instructional Design of AI-based systems (lecture) 6 Credits	
Semester 2	30 Credits	Introduction to Deep Learning (lecture) 6 Credits	Deep Learning Demystified: Hands-on Deep Learning for Non-CS Majors (exercise) 3 Credits	Explainable AI — A Comprehensive Seminar on Transparent and Ethical AI (seminar) 6 Credits	Academic Competencies and Practical Skills (seminar) 4 Credits	Methods 1 (exercise) 5 Credits	AI in Diverse Societies (lecture) 6 Credits
Semester 3	30 Credits	Natural Language Processing (lecture) 6 Credits	Human-AI Interaction (exercise) 6 Credits	Project Week (project) 6 Credits	Electives: AI in different domains of society 12 Credits		
Semester 4	30 Credits	Master's thesis 30 Credits					

- Learning Analytics
- Gaze-Based HCI
- Responsible Data Science for Safe and Socially Aligned AI Applications
- Law and Digitalization in Action
- Philosophy of Artificial Intelligence
- ...

Be sure to apply if you...

... have completed a bachelor's degree in **social sciences, political sciences, economics, law, psychology**, or a related field. **Technical backgrounds** are also very welcome!

... have an interest in **ethical AI practices, AI governance**, AI's socio-economic impacts, and the role of AI in **shaping future societies**

AI in Society vs. similar study programs



MSc AI in Society

Your profile

Background in social sciences/politics/tech.
You want to understand AI and its societal aspects.

Jobs

AI consultants, researchers, product managers, AI policy advisors. Ensure the responsible development of AI technologies.

MSc Politics & Technology

Your profile

Background in political sciences.
You are interested in political science, public policy, and tech.

Jobs

Policy analysts or advisors in e.g. governmental organizations.
Consultants in tech policy and regulations.

MSc Computer Science

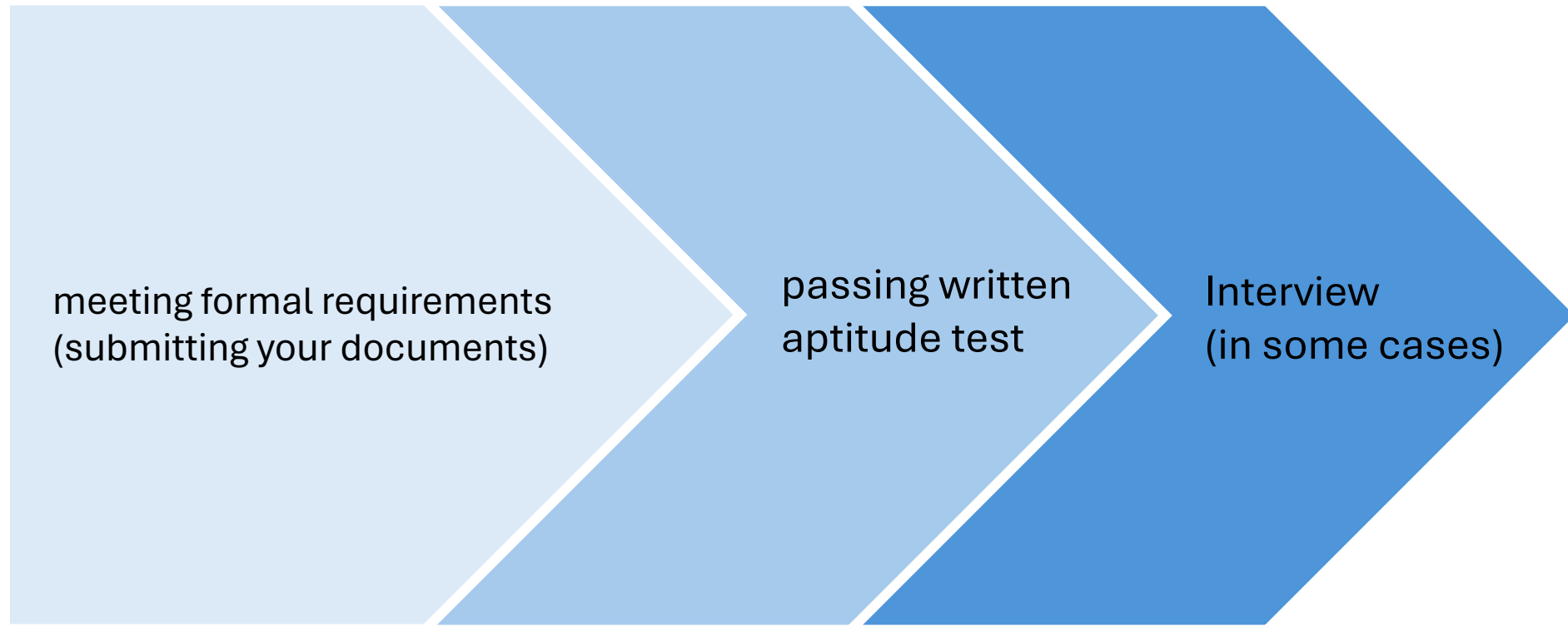
Your profile

Background in computer science, engineering, tech. You want to focus on technical aspects only.

Jobs

Developers of (AI) solutions, i.e. programmers.

Application Procedure



Step 1: Formal requirements

- Bachelor's certificate + diploma / Transcript to date
- Transcript of Records
- Proof of English Language Proficiency
- CV
- Preliminary Study Documentation (VPD, see uni-assist.de) if degree from outside EU/EEA
- **Optional:** Letter of Motivation

For a comprehensive list, see: <https://www.tum.de/en/studies/degree-programs/detail/ai-in-society>

Additionally, you need to fulfill the following requirements:

- At least 5 ECTS worth of mathematics / statistics modules
- At least 18 ECTS worth of a **practical project**

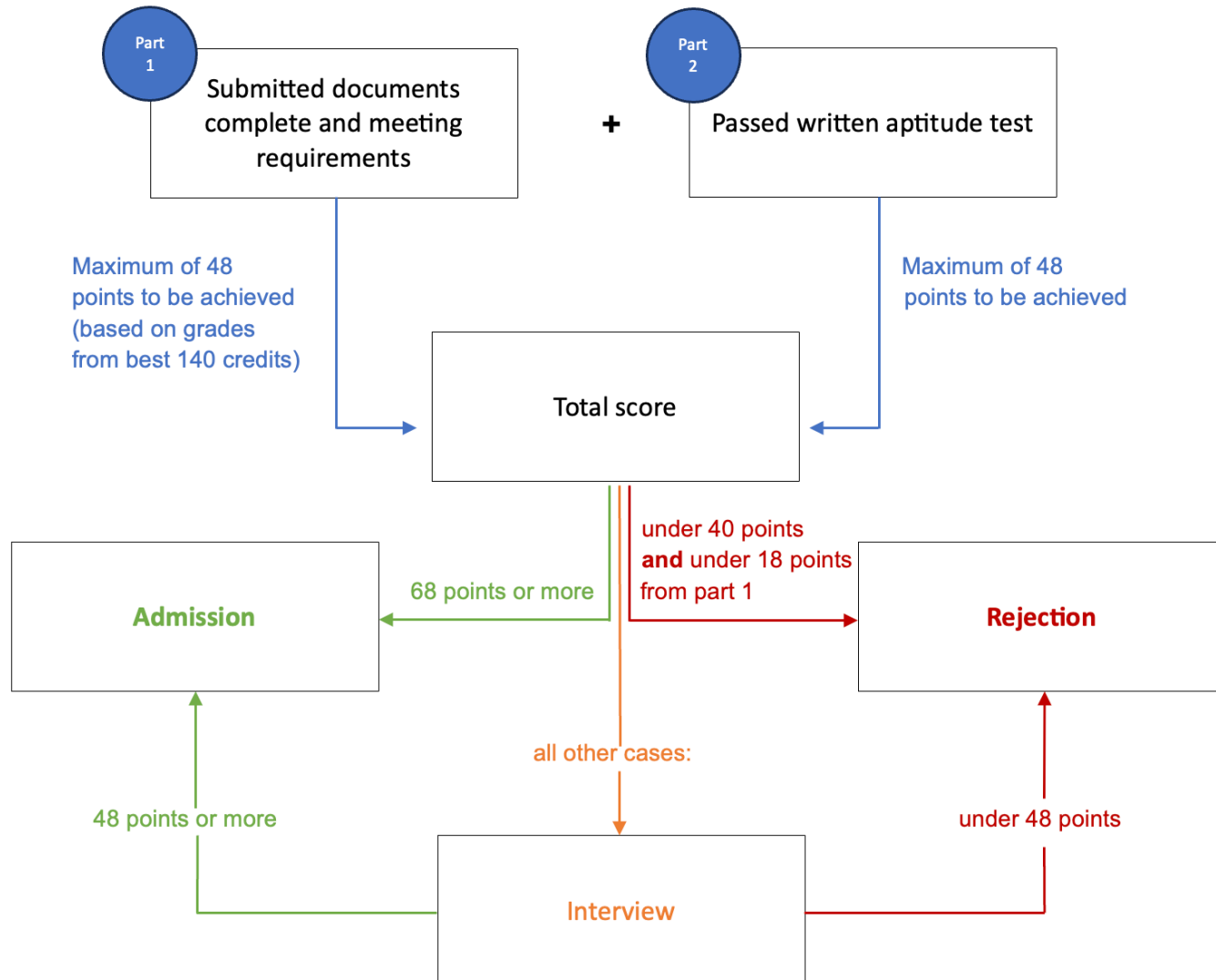
→ **practical analysis** of societal challenges, demonstrating the ability to apply a blend of technical and social science perspectives. For example:

- Data analysis of social media trends
- Developing educational technologies
- Data-driven approaches in healthcare
- ...

Step 2: Aptitude test

- Written test
- 90 minutes
- 35 multiple-choice questions from the fields of:
 - *Politics and social science*
 - *Economics and law*
 - *Mathematics and statistics*
 - *Science and engineering*

Application Procedure



Apply here:

<https://www.tum.de/en/studies/application/application-info-portal/online-application>

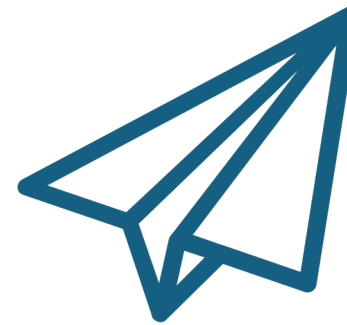
Find more information here
(including documents needed for
submission):

<https://www.sot.tum.de/sot/studium/ai-in-society/>

More Questions?



Ask now!



Send an E-Mail to:
ais@sot.tum.de