Intellectics The Science of AI M.A.

Application period: 1 May - 15 June (winter term)

Semester start: October 1st (winter term)

Language(s) of instruction: English

Introduction

The aim of the research-oriented and English-language programme
"Intellectics M.A." is to provide students with a deep understanding of the foundations, approaches, methods and results of the science of artificial intelligence (AI), based on the humanistic principle of education, and to promote a broad scientific understanding of the interaction between humans and systems that can perform non-trivial tasks for humans. Approaches for understanding these interactions with mutual influences will be pursued, assuming, for example, a perspective with research questions from the humanities, including philosophy.

The science of AI is an interdisciplinary field of research that uses findings from various humanities and structural sciences (in addition to engineering and natural sciences) and implements them from an information technology perspective. Central to the abstraction and modelling of information technology is the paradigm of a rational agent (also known as an agentic system). According to this paradigm, an actor acts in a dynamic environment and, given limited time and memory resources, independently develops a plan to achieve an internal goal based on its observations and its internally formed models. An agent may develop internal goals from context and task descriptions, or proactively within the framework of an overall context in which humans interact with agents. Intelligence in the sense of intellect means that agents act rationally and fulfil non-trivial tasks to the satisfaction of humans without using a predefined algorithm. In systems with multiple agents and humans, additional challenges arise because different local goals may be incompatible with a global goal. A system that successfully achieves a global goal is called an intelligent or AI system.

In addition to a critical-analytical examination of intelligent agents, students will acquire the theoretical and practical skills necessary to develop new agents that are safe, trustworthy, robust, transparent and explainable. Furthermore, they will learn to evaluate a wide range of possibilities and potential dangers by reflecting on ethical issues with a view on social mechanisms (interaction of human and agents with mutual influences).

Professionally, students not only have the option of pursuing an academic career with a doctorate in the interdisciplinary field of AI, e.g. with computer science, philosophy, mathematics, sociology, economics, etc. But, also, they may opt for working in an advisory capacity, e.g. in companies, commissions or non-profit organisations for all AI-relevant topics. The declared aim of the programme in terms of sustainable teaching is not only to help students to successfully apply for

jobs in the areas mentioned, but also to ensure quality and stability in professional life (job security). This will be achieved by teaching the essential ideas, concepts, methods, and approaches in a sustainable way - in contrast to a focus on currently popular technologies, programming languages or the like.

Admission Requirements

The following special admission requirements apply to the Master's degree programme in Intellectics:

- A first professionally qualifying university degree in courses of study with a humanities major or in the subjects of computer science or mathematics from the University of Hamburg or in comparable courses of study from a German or recognised foreign university or
- a first professionally qualifying university degree in the subjects of sociology or psychology from the University of Hamburg or in comparable degree programmes from a German or recognised foreign university or
- a first professionally qualifying university degree in the subjects of business administration or economics from the University of Hamburg or in comparable degree programmes from a German or recognised foreign university.

In addition, knowledge of the English language at level B2 of the Common European Framework of Reference for Languages must be demonstrated as follows:

- International English Language Testing System (IELTS) Academic Test with at least 5.0 or
- Test of English as a Foreign Language (TOEFL) internet-based Test with at least 72 points or
- Cambridge Certificate of Advanced English (CAE), of Proficiency in English (CPE), Higher
- Business English Certificate (BEC), First Certificate in English (FCE) or
- University degree in an English-language programme or
- Certificate of a six-month stay in an English-speaking country or
  Seven years of English lessons at a German-speaking school (to be proven by the Abitur certificate).

Recognition of transcripts for degree programs completed at foreign higher education institutions
If you obtained your first degree abroad, your certificate will be reviewed during the application procedure in the faculty of your program.
If your degree certificate is not in English or German, please include a copy of a certified English or German translation of the certificate with your application documents.

Application

Online Application

You will need to complete the online application available on Universität Hamburg's application portal during the application period: www.uni-hamburg.de/online-application. Please create a user account, enter your information online, upload the required documents to your online application and submit your application online.
The application procedure for the master program is an online procedure. This means that you do not need to submit any documents in paper form or via email to Universität Hamburg. Instead, you have to upload the documents. Selection is based on the information you provide online and the documents you upload.

If you want to submit an additional special application (e.g. hardship application), you will need to send this special application separately via the online application portal together with the required proofs as an upload by the application deadline. For more information on special applications, please see www.uni-hamburg.de/sonderantrag and www.uni-hamburg.de/info-master.

Documents to submit

- Degree certificate including Transcript of Records. If you have not yet completed your first degree, please upload only a current Transcript of Records.
- Proof of English language proficiency at level B2 of the European Framework of Reference. Accepted forms of proof include:
  1. International English Language Testing System (IELTS) Academic Test with a minimum score of 5.0, or
  2. Test of English as a Foreign Language (TOEFL) internet-based test with a minimum score of 72 points, or
  3. Cambridge Certificate of Advanced English (CAE), Certificate of Proficiency in English (CPE), Higher Business English Certificate (BEC), or First Certificate in English (FCE), or
  4. University degree from an English-speaking program, or
  5. Certificate of a six-month stay in an English-speaking country, or
  6. Seven years of English instruction at a German-speaking school (to be verified with the Abitur certificate).
  - Optional: Additional documents such as Transcript of Records/degree certificates, visa confirmations (e.g., China, India), or letters of recommendation.

  For documents not issued in German or English, a certified translation is required.

Selection criteria

If the number of applicants exceeds the number of places available, a selection procedure will be necessary: according to the current bylaws

For details of the legal basis for this regulation, please see the selection bylaws for your chosen master's program: www.uni-hamburg.de/auswahl-master

Admission and enrollment

Once your application has been reviewed, an acceptance or rejection letter will be made available in your STiNE account under the Dokumente (Documents) tab. Please see the information at www.uni-hamburg.de/online-application. An enrollment deadline will be indicated in your acceptance letter - please submit the documents required for enrollment by this date. The enrollment process is an online process. Detailed information about the enrollment process is provided at www.uni-hamburg.de/masterenrollment.

Contact

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