

# Study branch Artificial intelligence

Generated: 6. 2. 2026

<b>Faculty</b>	Faculty of Electrical Engineering and Computer Science
<b>Study programme</b>	Computer Science
<b>Type of study</b>	Follow-up Master
<b>Language of instruction</b>	English
<b>Code of the branch</b>	S01
<b>Title of the branch</b>	Artificial intelligence
<b>Regular period of the study</b>	2 years
<b>Cost</b>	50,000 CZK per semester
<b>Coordinating department</b>	Department of Computer Science
<b>Coordinator</b>	prof. RNDr. Václav Snášel, CSc.
<b>Key words</b>	

## Graduate's employment

Graduates specializing in Artificial Intelligence will find employment primarily in technology companies, research organizations, and institutions involved in data processing and analysis. They can work as data analysts, machine learning model developers, neural network specialists, artificial intelligence researchers, or consultants for the deployment of intelligent systems. Thanks to a combination of theoretical knowledge and practical skills, they will be prepared to design and implement advanced solutions using artificial intelligence in areas such as image and natural language processing or the development of intelligent software systems. They will find employment in both the private sector and in research and academic institutions.

## Study aims

Choosing the Artificial Intelligence specialization allowed the graduate to focus on selected areas as an expert in artificial intelligence, machine learning, and data analysis. As part of this specialization, the graduate deepened their knowledge in the areas of intelligent system design and implementation, data processing and evaluation methods, neural networks, and deep learning. The knowledge they gained enables them to effectively apply these approaches in various areas of computer science, such as process automation, image and natural language processing, and the development of intelligent software systems.

## Graduate's knowledge

Graduates of the Artificial Intelligence specialization have expanded their knowledge and skills in the field of artificial intelligence and machine learning during their master's studies. They are able to distinguish the nature of the data being examined, understand the requirements for its processing, and design and use appropriate methods for its analysis. At the engineering level, they can explain the principles of selected methods, parameterize them, and adapt them to the needs of the tasks at hand, and are able to identify their strengths and weaknesses. Graduates have the potential to implement selected machine learning methods with regard to current trends in the development of software and hardware components. They are able to communicate and present the methods used and the results of their analyses in an appropriate manner.

## Graduate's skills

Graduates of the Artificial Intelligence specialization are able to independently design, implement, and evaluate machine learning algorithms and models. They can process, analyze, and interpret large data collections using modern tools and libraries. Graduates are also able to apply artificial intelligence methods to solve practical tasks in image recognition and natural language processing. They master the principles of data preparation, visualization, and interpretation of results. They are able to collaborate effectively within

research and development teams and present the results of their professional work.

## **Graduate's general competence**

Graduates of the Artificial Intelligence specialization are able to communicate effectively within multidisciplinary teams comprising experts from various fields, such as data analytics and statistics. They can present the results of their work in a comprehensible manner to both professional and lay audiences and defend their chosen approaches and methodologies. They are able to critically assess the quality and ethical aspects of the use of artificial intelligence, take into account the social impacts of technology, and make responsible decisions. They are proficient in working with professional resources, are familiar with current trends, and are prepared to continue their education in this rapidly developing field.

## **Study curriculum**

- form Full-time (en)