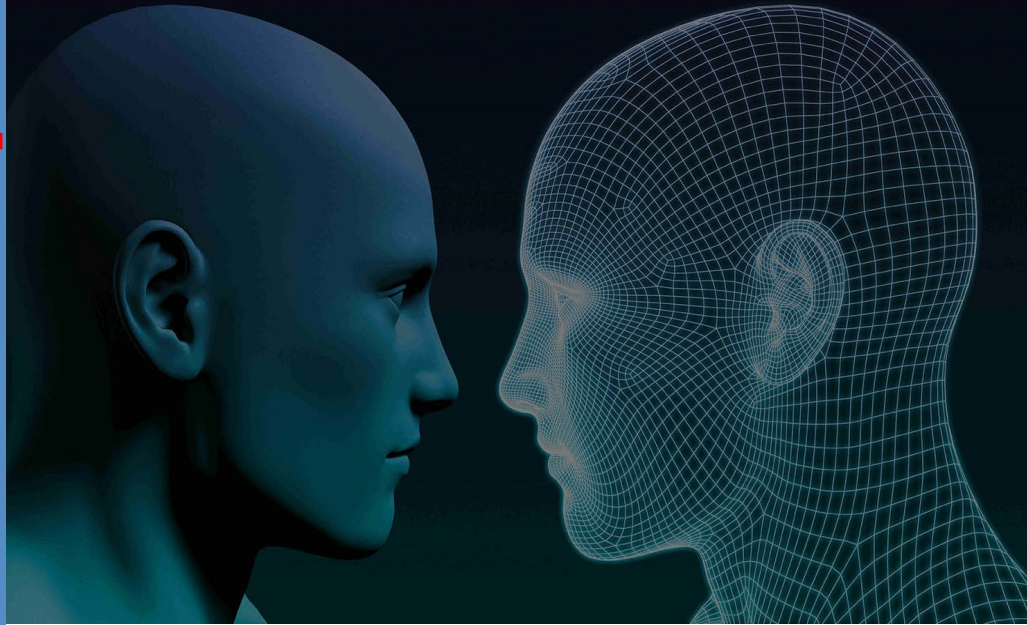


MAI & DL

Master in Artificial Intelligence and Deep Learning

10 MONTHS • ONLINE • NOVEMBER



Specialize in ARTIFICIAL INTELLIGENCE & DEEP LEARNING. DO YOU ACCEPT THE CHALLENGE?

The Master in Artificial Intelligence and Deep Learning provides the tools to understand how Machine Intelligence works as well as to put into perspective the impact of artificial sensing, cognition and action in areas such as Finance, Medicine of Arts. The **objectives of the Master in Artificial Intelligence and Deep Learning** consist on:

- Understanding the formal foundations of Machine Learning and its implications in human-machine interactions.
- Learning how to use high level languages in order to develop real applications based on AI as well as understanding the problems in implementing such applications in practice.
- Guiding the proposal of AI-based solutions, considering the ethical and legal aspects and the economic and social implications.

The master is offered in **ONLINE MODE**. This is our **FIFTH** edition.

WHAT DO WE OFFER?

- Our Master in Artificial Intelligence and Deep Learning allows you to make your training **COMPATIBLE WITH YOUR WORK** thanks to an innovative learning methodology.
- A **SOUND PREPARATION** for a total of **60 ECTS credits**, which allows to cover in depth all the concepts and applications.
- A **METHODOLOGY** focussed on practice and context, using cases, real situations and technological tools that allow you to learn from the beginning.
- An **UPDATED CURRICULUM**, which ensures that our students are obtaining the latest knowledge in line with the trends and demands of Society.
- We have arranged a team of **OUTSTANDING PROFESSORS** with hands-on experience in the design of Artificial Intelligence and Deep Learning Systems.
- Study your program at the **UNIVERSITY OF ALCALA**, one of the best Universities in Europe.



Venue

FULLY ONLINE

Schedule

November 2020 -
September 2021

Tuition Fee

5,900 €

Scholarships

The University of Alcalá can offer a scholarship program and installment payment options to help pay for your master's degree.

PROGRAMME

Programing in Python

Arrays, matrices and vectors.
Graphics.
Program flow management.
Interfaces and data loading.
Programming exercises.

Artificial Intelligence and Machine Learning

History and Evolution of Artificial Intelligence.
Supervised, unsupervised and reinforced Learning.
Symbolic and sub-symbolic learning.
Classification and Regression Models.
Model Optimization.

FeedForward Networks

Feed-Forward single-layer networks.
Multilayer Networks.
Backpropagation Algorithm.
Loss functions.
Hyper-parameters and learning strategies.

Convolutional Networks

Fundamentals of Convolutional Networks.
Structure of Convolutional Networks.

Sequential Networks

Sequential and time series problems.
Recurrent networks.
Backpropagation through time.
LSTM models.

Genetic Algorithms and Evolutionary Computation

Search and Optimization.
Coding.
Genetic Algorithms.
Evolutionary Strategies.
Swarm Models.

Unsupervised and Reinforced Learning

Clustering and Classification.
K-Mean type Algorithms.
NN-type algorithms.
Tree Algorithms.
Reinforcement learning.

Augmented Intelligence and Human Machine Interaction

Cognitive Theories.
Interaction design.
Robot ethics.
Augmentation technologies.

Seminars

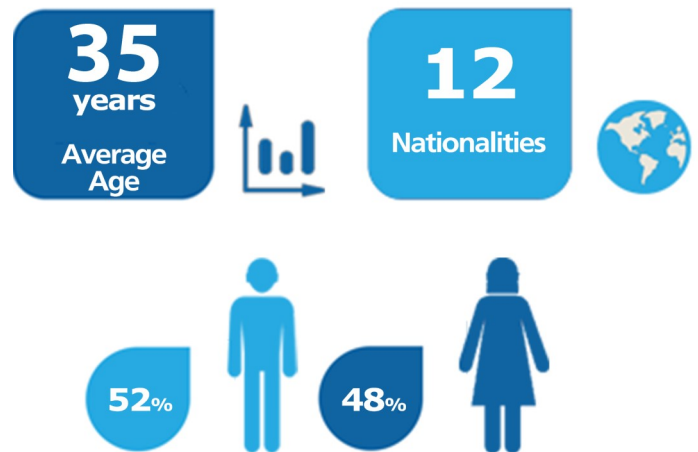
Seminars on applications of Deep Learning to the fields of medicine, finance, automotive driving, computer vision, speech recognition and others.

MASTER'S THESIS

PARTICIPANT PROFILE

The **Master in Artificial Intelligence and Deep Learning** targets both professionals and young graduates interested on understanding the foundations and implications of Artificial Intelligence and Deep Learning in Business, Art and Society.

The profile of candidates that can apply is: young graduates in engineering, medicine, social sciences or professionals with a graduate degree.



Information

Request further information and start your admission process by contacting our Admissions Department:

masterai@uah.es

www.master-artificialintelligence.com