UNIVERSIDADE DA CORUÑA

USC UNIVERSIDADE DE SANTIAGO DE COMPOSTELA

Universidade Vigo

MASTER IN ARTIFICIAL INTELLIGENCE

Introduction

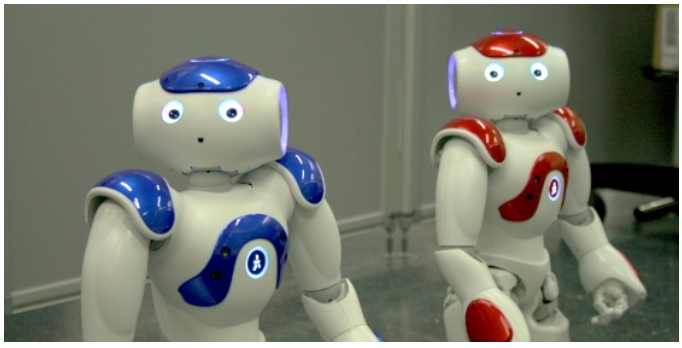
The Master of Science in Artificial Intelligence (in Spanish, Máster Universitario en Inteligencia Artificial; MIA) is an **official master comprising 90 ECTS credits** distributed in 3 four-month periods (or quadrimesters), approximately corresponding to one year and a half. The MIA is an inter-universitary postgraduate degree, offered and taught by the three public Galician universities, University of A Coruña, University of Santiago de Compostela and University of Vigo (in its campus in Ourense). Teaching is **face-to-face** and is made completely in **English**, so that a minimum skill level in that language is required to enroll (at least B1 or equivalent).

What is covered

Although the area of machine learning is clearly the most popular AI discipline nowadays, in fact, almost every sophisticated AI system requires the combined use of other AI areas such as knowledge representation, automated reasoning, image or speech recognition, language technologies, multiagent systems or autonomous robotics. The master consists of nine mandatory courses and 18 optional courses, all of them grouped in seven main subjects: AI Foundations, Reasoning, Machine Learning, Natural Language Processing, Computer Vision, Robotics and Applied AI. Some courses are taught in 2-month periods. The temporal distribution of courses is shown below.

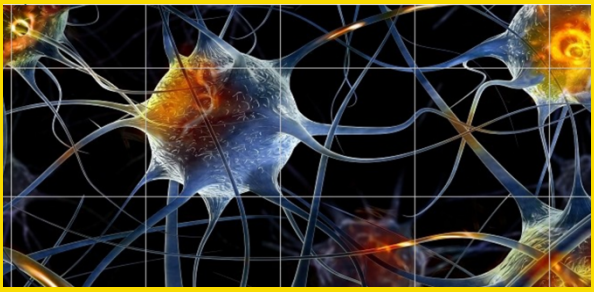
Q1		Q2		Q3
Reasoning and Planning		Deep Learning		Work Placement
Natural Language Undestanding		Q2-1	Q2-2	Computational Asp. of Cog. Science
Machine Learning I		Trustable & Explainable AI	Computer Vision II	Text Mining
Q1-1	Q1-2	AI Project Management	Intelligent Robotics II	AI in Big Data Env.
AI Fundamentals	Computer Vision I	Machine Learning II	Language Modelling	Intelligent IoT
Data Engineering	Intelligent Robotics I	Multi-Agent Systems	Web Int. & Semantic Tech.	Int. Cybersecurity
		KR with Uncertainty	Process Mining	Emergent and Enterpreuneurial AI
		Evolutionary Computation	Int. Real Time Systems	AI in Health
				MSc Dissertation (12 ECTS)

	Mandatory course, 6 ECTS
	Mandatory course, 3 ECTS
	Optional course, 6 ECTS
	optional course, 3 ECTS



Teaching

All teaching activity is developed **at the classroom** in your local university (A Coruña, Santiago or Ourense) but may imply remote broadcasting when the lecture is given by a professor from a different location. In this way, all students have a direct access to the state of the art of AI in the three Galician universities.



Research

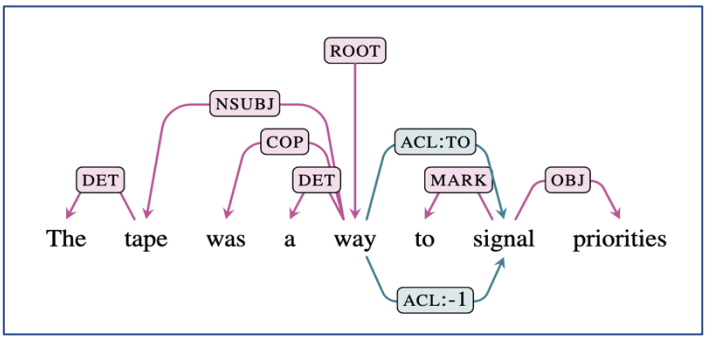
The MSc in AI counts on a **specialised faculty** with a verified expertise in the main disciplines inside AI. Many professors are members of research groups with international recognition and prestige, providing the students with many of the resources and results of ongoing research, together with the use of cutting-edge technology in the two main specialised Galician research centers, CiTIUS and CITIC.

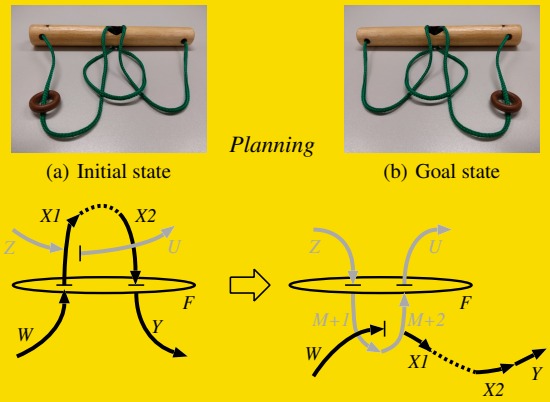
Three different reasons to enroll

1. **Becoming an AI specialist**: this is one of the most demanded profiles in the last years, with a clear lack of specialists in this field. This master is a natural continuation for undergraduates in Computer Science, Data Science and Engineering, Mathematics, or some technical or Engineering profiles that want to focus their main activity towards AI.

2. **Extending your professional capabilities:** experienced professionals that want to extend their capabilities and growth potential in their work environment or that are considering an entrepreneurial initiative. MIA means a good technical complement for other postgraduates coming from a more traditional Software Engineering training too.

3. As a **bridge to a research career** in any of the **doctorate programs** related to AI in the three public Galician universities, or in many other European PhD programs from collaborating institutions.






```
c(max,M+2) :- crossed, 'h(max,M).
c(next(M+1),M+2) :- crossed, 'h(max,M).

% Pulled string
c(cross(W), f(l(M+1,M+2),D)) :-
    o(pull(l(X1,_))), 'h(next(W),X1),
    crossedby(Z,D), 'h(max,M).
c(cross(X2)) :- o(pull(l(_,X2))), crossed.
```

Admission

The students enrolling are required a **B1 English level** from the Common European Framework of Reference for Languages, or above. As any official master, the student must be in possession of a previous university degree, with the following recommended profiles: Computer Science, Data Science and Engineering, Artificial Intelligence, Robotics, Mathematics, Physics, Telecommunications Engineering or Industrial Engineering. Other technical degrees can be allowed provided that they include a certified background knowledge on Mathematics, Programming, Data Structures, Algorithms or Computer Structure fundamentals, and are approved by the MSc Academic Comission.

Weekly schedule 2023-2024

Q1-1	Mon	Tue	Wed	Thu	Fri
15:30	DE	AIF.c	DE.x		
17:00	RP	ML1.x	NLU	AIF	
18:30	RP.x	ML1	NLU.x	AIF.s.o	
Q1-2	**Mon**	**Tue**	**Wed**	**Thu**	**Fri**
15:30		CV1	CV1.x		
17:00	RP	ML1.x	NLU	IR1	
18:30	RP.x	ML1	NLU.x	IR1.x	

	Mon		Tue		Wed		Thu		Fri	
Q2-1	**R1**	**R2**	**R1**	**R2**	**R1**	**R2**	**R1**	**R2**	**R1**	**R2**
15:30	DL		EC	KRU	EC.r	KRU.r	DL.x		MAS	
17:00	AIPM		TXAI		MAS		ML2		MAS.r	
18:30	AIPM.x		TXAI.x		MAS.r		ML2.x			
Q2-2	**R1**	**R2**	**R1**	**R2**	**R1**	**R2**	**R1**	**R2**	**R1**	**R2**
15:30	DL		IRTS		IRTS.r		DL.x			CV2
17:00	IR2	PM	IR2	LM	WIST	CV2	WIST			CV2.r
18:30	IR2.r	PM.r	IR2.r	LM.x	WIST.r	CV2.r	WIST.r			

Q3	Mon	Tue	Wed	Thu	Fri
17:00	BDE	TM	COG	IOT	
18:30	BDE	AIH	CYB	AAEI	

RP	Reasoning & Planning
ML1	Machine Learning I
NLU	Natural Language Understanding
DE	Data Engineering
IR1	Intelligent Robotics I
CV1	Computer Vision 1
AIPM	AI Project Management
TXAI	Trustworthy & Explainable AI
DL	Deep Learning
MAS	Multi-agent Systems
KRU	Knowledge & Reasoning under Uncertainty
EC	Evolutionary Computation
ML2	Machine Learning II

LM	Language Modelling
WIST	Web Intelligence & Semantic Technologies
PM	Process Mining
CV2	Computer Vision II
IR2	Intelligent Robotics II
IRTS	Intelligent Real Time Systems

BDE	AI in Big Data Environments
TM	Text Mining
AIH	AI in Health
CYB	Intelligent Cybersecurity
AAEI	Emerging and Entrepreuneurial AI
IOT	Intelligent IoT
COG	Computational Aspects of Cognitive Systems

Contact

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