MSc 🇬🇧

Embedded AI & Edge Intelligence

G | MSc MASTER OF SCIENCE

MSc label from the Conférence des Grande Écoles

PARIS

Enhancing real-time intelligence at the edge

With billions of connected sensors and smart devices powering modern life, companies are increasingly seeking experts capable of developing AI solutions that run directly on devices for ultra-fast responses and enhanced data privacy. In response to this demand, the Master's programme in Embedded AI and Edge Intelligence offers a highly specialised curriculum tailored to students who want to push AI beyond the cloud and into edge devices.

The programme, which is based on practical projects, focuses on the design and deployment of lightweight AI models directly on edge hardware. It also explores cutting-edge approaches to creating AI solutions that protect sensitive data by training models collaboratively across different devices. In addition, the programme covers AI optimisation at the hardware level to maximise device performance and efficiency.

In addition, the programme cultivates students' ability to translate complex topics into clear, actionable information for product managers, executives, and regulators who support edge AI initiatives.

The objectives

- ⊘ Developing on-device AI strategies that balance performance, privacy, and energy efficiency

- ⊘ Design and deploy lightweight AI architectures suitable for cutting-edge AI and embedded AI

Focus on careers

- ⊘ Embedded AI Engineer
- ⊘ AIoT (Artificial Intelligence & Internet of Things) Developer
- ⊘ AI Engineer for Edge Computing
- ⊘ Software Engineer for the IoT
- ⊘ Mobile AI developer
- ⊘ MLOps Specialist for Edge Devices

Embedded AI & Edge Intelligence

Year 2 (90 ECTS)

Embedded AI Fundamentals	ECTS
Edge Computing, Communication & Storage	4
Tiny Machine Learning	3
Embedded Intelligence and AI Hardware	4

Lightweight & Efficient AI Models	ECTS
Neural Network Architectures for Edge	3
Model Compression & Optimization for AI	3
Frugal Generative AI	4

Managerial Innovation Serving Leadership	ECTS
Intercultural Leadership and Team Management	2
Communication and Innovation Management	2
Job Interview Simulation	2

Foreign Language	ECTS
French courses	3

Model Deployment and Production	ECTS
On-Device Computer Vision	5
On-Device NLP and Speech Technologies	5
Robotics and Autonomous Systems at the Edge	5

Today's Challenges and Future World Transformations	ECTS
Ethics and Regulations for On-Device AI	2
Privacy-Preserving AI Techniques	2
Federated Learning & On-device Training	2

Project Management and Innovation	ECTS
Applied Agile & Risk Management	4
Project Management Certification	1
Dissertation Writing	1

Foreign Language	ECTS
French courses	3

Professional immersion	ECTS
Internship	10
Dissertation	20