MASTER'S DEGREE IN COMPUTER SCIENCE

STUDENT

Code : MasterDegreeCS4A(PA)
CodeRncp : RNCP40612
CodeCpf_FNG : 245601

OBJECTIVES

Designing digital applications that meet a customer's needs
Having a good command of programming languages to develop and maintain software solutions for all kinds of professional or consumer applications
Designing, developing and maintaining architectures capable of safeguarding public or private network communications
Upgrading existing information systems to the expected level of performance according to technical and technological developments
Managing and using data to derive useful information for the company's development
Ensuring the digital transition of companies by proposing solutions adapted to efficiency and sustainable development requirements

FOR WHOM?

Eligibility
Students wishing to study a program in English at a French engineers school, after an academic career in higher education abroad

Admission requirements
- Holding an international Bachelor's Degree diploma or equivalent
- Having A2 level in French (required)
- Having B1 level in English (required) - refresher courses available

Academic calendar
Full-time 2-year program, including periods of professional internship
The 2nd year can be done under a work-study contract.

Scholarship
8 500 euros/an

Price applicable for the 2026 school year.

MASTER'S DEGREE

Ingénieur diplômé du CESI spécialité Informatique

JOIN CESI. LIVE A UNIQUE EXPERIENCE IN FRANCE.

Visit our website for opening dates

Lille, Lyon, Paris - Nanterre, Rouen, Strasbourg, Toulouse

Back to school on 14 September 2026

Edition : 08/11/25

The information mentioned on this sheet is subject to change.

Higher education technological institution

CESI
ÉCOLE D'INGÉNIEURS

Fundamental engineering sciences

Practicing the mathematical tools for engineers
Fully grasping and implementing advanced algorithmic concepts
Using statistics and probability
Using the graph theory to solve problems
Applying operations research to optimization problems
Conducting a study as part of research
Analyzing and recognizing complex problems
Using cryptography as part of an IS

Sciences and methods of an engineer

Using modeling methods as part of IT projects
Fully grasping Big Data concepts
Working with software engineering tools
Understanding how the Internet of Things works
Controlling and implementing Computer Science security
Discovering the innovation principles
Fully grasping the governance principles
Acting in line with Green IT
Practicing regular technology watch
Proposing and deploying a design of experiments
Practicing project management

Sciences and techniques of industrial engineering

Major in Data Science & AI:
Mapping and administering an operating system
AI principles and techniques
Applications of Data Science and AI
Data governance and ethics
Integrating AI into application development

Major in Systems Networks & Cybersecurity
Study of communication principles and protocols, network security
Study of operating systems, management of process and resources
Basics of computer security and cryptography
Comprehension of management aspects of information systems, & risk management
Forensic analysis in Computer Science

Major in Embedded Systems & IoT
Study of hardware and software components of embedded systems
Programming in C/C++ languages & code optimization
Study of operating systems adapted to embedded systems
Study of interfaces and communication protocols used in embedded systems
Development of software applications for embedded systems, use of libraries and specific frameworks
Study of time constraints in embedded systems
Cloud integration (deployment models, green IT)

Humanities, economics, legal and social sciences

Discovering team management
Using the basic principles of economics and business administration in a company
Becoming fully aware of labor law
Working in a highly intercultural environment
Acting ethically
Fully grasping notions related to entrepreneurship
Understanding what Corporate Social Responsibility entails

International

English: writing and speaking skills, preparation for the TOEIC test certification
French: capacity-building course in French as a Foreign Language (FLE)
Interculturality

Professional project

The Individual Training Project allows each student to draw up their professional goals:
- identifying the skills required for the targeted position,
- performing a self-assessment,
- building a progress plan
- assessing their progress

Students benefit from optimized preparation for taking up their position at the end of the program. This process is followed up throughout the training by CESI teachers and recruitment experts.

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