

# Master of Science and Engineering Software Engineering

English taught program



Software Engineering goes beyond the technical aspects of computing to include experience, systems analysis, programming, maintenance and more into the design of software. Applications development encompasses all elements of the design chain of high-tech products in embedded systems middleware and infrastructures. The quantity of data to process is ever-growing and methods of collection, storage and analysis are constantly evolving. The aim of JUNIA ISEN's Software Engineering Master program is to **train IT engineers specialized in cutting-edge technology and facing the future of software engineering**, with a comprehensive approach to design.

## active pedagogy

Our Software Engineering program includes project-based learning, active teaching methods, and learning-by-doing. This hands-on approach gives students real world experience and, with our piecemeal curriculum, the power to decide how to build their own expertise.

### LEARNING BY DOING

- Teaching and group projects supervised by professionals
- Co-design labs with partner schools

## projects

Semester-long team projects are an integral part of the curriculum. One day per week is dedicated to group projects in collaboration with a professional expert, partner company, or research institute and supervised by a JUNIA ISEN faculty member.

### EXAMPLES OF PROJECTS

- Design and creation of an automated network for a cybersecurity bench
- Linux container accessible remotely
- Post-quantum cryptographic libraries

## internships

Students spend 40% of the program immersed in real professional experience. These internships, carried out either in France or abroad, in a company or research center, expose students to the current reality of working and prepare them for entry into the global workforce.

### EXAMPLES OF INTERNSHIPS

- Front-end developer
- Study and development of a strategic project using agile methodology

## career prospects

The latest technological devices need well-built software to function. Optimizing not only the creation but use and maintenance of software is essential to creating a sustainable system of reliable processes. Understanding how to engineer software with a holistic approach is a vital skill for a variety of technological applications. Some career prospects in Software Engineering include applications designer, website developer, IT solutions integrator, test engineer, systems and network architect, IT project leader, director of information systems, facilities engineer, network operations engineer, web architect, multimedia developer, and more.

In addition to exceptional technical knowledge and managerial skills, JUNIA ISEN graduates are prepared for the reality of the professional world even before they get their diploma, which is why **100% of JUNIA ISEN alumni are employed within 6 months of graduating.** JUNIA ISEN's more than 26,000 alumni around the world work for some of the biggest names in electronics and digital technology or join and create their own startups thanks to the entrepreneurial mindset cultivated at JUNIA.

## Practical information

### admission requirements

- Bachelor's degree in Digital and Information Technology, IT Engineering or any related fields
- English B2 level certified by an official test IELTS, TOEIC, TOEFL IBT or FIRST
- Knowledge of French language is recommended, but not required for admission

### application procedure

- Complete your online application on [admissions.junia.com](https://admissions.junia.com)
- Have an individual interview (online)
- Application deadline: **May 15<sup>th</sup>, 2024**

### financial aspects

#### Fees and other expenses

- Tuition fees : 9,000€ / year (18,000€ for the 2-year program)
- Living expenses in France: approx. €850/month
- Miscellaneous fees (insurance, visa...): approx. €650/year

#### Scholarships and Financial Aid

- Scholarships: refer to your local French embassy or Campus France Office
- Paid internships if carried out in France: min. €555/month
- French government housing allowance: approx. 90€/month

## MASTER 1

		ECTS
Fall Semester	Network & System Base	3
	Python Scripting	3
	Java 1	3
	Operating Systems	3
	Android	3
	Technical Project 1	5
	Humanities & Management	3
	French as a Foreign Language	2
Spring Semester	UNIX	3
	Java 2	3
	Quality-Driven Software Development	3
	Artificial Intelligence	3
	Database	3
	Technical Project 2	5
	Humanities & Management	3
	French as a Foreign Language	2
Summer Internship	Three-month Internship	10

## MASTER 2

		ECTS
Fall Semester	Cloud Computing & Architecture	3
	JEE	3
	IT Risk & Management	3
	Object-Oriented Design	3
	Electives (choose one):	
	Urbanization of IT services	3
	Hardware for Artificial Intelligence	3
	Humanities & Management	5
	Innovation Project	10
Spring Semester	Six-month Internship	30

Course details are subject to change, please visit [junia.com](https://junia.com) for the latest information

## international student services

### Dedicated support just for you

- Reservation of accommodation in a student residence
- Administrative procedures (visa, resident permit, etc.)
- Integration into student life (associations, activities, etc.)
- Welcome Session: intensive French language course, intercultural communication, orientation week, social events, and more