

MASTER'S DEGREE

COMPUTER SCIENCE

UBIQUITOUS NETWORKING (UBINET)

**Ramon APARICIO PARDO**
UBINET M2 Coordinator

Delivered entirely in English to attract the world's top talent, the UbiNet track of the Master's in Computer Science aims to provide students with

excellent academic or industrial career opportunities by offering high level coverage of networking principles. The technical core of the programme focuses on the modelling of networks and distributed systems (HPC), where AI and algorithms are used as scientific tools to optimise flow management and energy efficiency.

Drawing on the ecosystem of excellence at Sophia Antipolis, the programme benefits from strong scientific backing thanks to close partnerships with internationally renowned research laboratories.

By fostering a high level of methodological rigour, the programme prepares Ubinetters to produce original contributions and lead complex projects within academic laboratories or cutting-edge industrial R&D centers.

CAREER OPPORTUNITIES

- Researcher in Digital Sciences (after a PhD)
- Systems and Cloud Architect
- Infrastructure Research Engineer
- High-Performance Computing Expert
- Network Infrastructure Engineer
- Virtualization Solutions Architect

THALES

SAP

AMADEUS

orange

Alcatel-Lucent



Program Coordinator:

ramon.aparicio-pardo@univ-cotedazur.fr



ds4h.univ-cotedazur.eu/ubinet

+ UBINET TRACK HIGHLIGHTS

- + A programme taught entirely in English, offering an internationally oriented education based on partnerships with leading technical universities.
- + Courses backed by leading research laboratories in Sophia Antipolis, Europe's largest technology park.
- + Excellence scholarships for international students through the WINGS program.
- + Open to work-study program with Formasup Méditerranée.
- + Tailor your study program with minor courses, projects, career events, competitions, hackathons and international mobility opportunities.

LEARNING OUTCOMES

Become an expert capable of shaping tomorrow's technological choices in the fields of the Internet, Telecommunications, and Distributed Systems.

What you will learn:

- Designing and automating complex, highly available virtualized infrastructures for the cloud and data centers.
- Mastering parallel (HPC) and distributed computing.
- Optimizing the scalability, latency, and energy efficiency of massive systems.
- Mobilizing AI and machine learning as technical levers to automate network management and dynamic resource allocation.
- Managing R&D projects using a rigorous scientific approach to produce and disseminate specialized knowledge in digital systems.

RNCP n°39278

Program, application process
and schedule, testimonies...





Master's degree
Bac +5
Duration: 1 year



Open to
work-study
program



Capacity
30
students



Campus
SophiaTech
Biot, France



90 %
Employment rate
18 months after graduation*

MASTER 2

Network Foundations	Graph Algorithms and Combinatorial Optimization / Machine Learning: Theory and Algorithms / Algorithmic Approach to Distributed Computing
Advanced Networks	Evolving Internet / Multimedia Networking / Performance Evaluation of Networks
Optional Courses	Algorithms for Telecommunication Networks / Blockchain and Privacy / Federated Learning / Internet Measurements and New Architectures / Introduction to Security / Large Scale Distributed Systems / Machine Learning for Networks / Virtualized Infrastructure in Cloud Computing
Minors and Projects	Program Customization Options French as a Foreign Language For non-French-speaking students
Professionalization	Research Project (sem.3) + 6-months internship (sem.4) or Work-Study program throughout the year

+ Events throughout the year: TECH Day, meetings with professionals, Sophl.A. Summit, Games on Web...

WHY CHOOSE UNIVERSITÉ CÔTE D'AZUR FOR YOUR MASTER'S DEGREE ?

➤ EXPERIENCE THE EXCELLENCE OF FRENCH HIGHER EDUCATION

Our lecturers are also practitioners or researchers working in internationally renowned teams affiliated with the CNRS or Inria. They ensure a high-quality education that is directly linked to major scientific and technological advances.

➤ PERSONALISED PATHWAY

As the semesters progress, create your own unique study plan with a wide range of optional courses and projects.

➤ JOB OPPORTUNITIES

Together with our partner companies, take advantage of countless opportunities to learn outside the classroom and make a smoother transition into the job market.

➤ INTERNATIONAL OUTREACH

With the support of our dedicated International Relations team, make your plans for studying or working abroad a reality!

CAMPUS Sophia Tech



Anna VANDI
Graduated 2024
PhD Student, i3S Laboratory/CNRS



"The UbiNet Master's program sparked my passion for research and inspired me to pursue a PhD. The opportunity to undertake a research internship aligned with my interests allowed me to explore a new field and discover a genuine drive for scientific research. In a stimulating and collaborative environment, UbiNet sharpened my technical skills and analytical thinking, both essential in my daily life as a PhD student."

➤ TARGETED PROFILES

- The program is designed for those having completed four years of University (either a 3-year Bachelor program and a 1st year of Master of Science or a four-year-long Bachelor) in either computer science, networking, applied mathematics, or electrical engineering.
- **Prerequisites:** Very strong skills in Mathematics, Algorithmics and Programming. Good skills in Networks.

➤ WORK-STUDY PROGRAM

- «Apprentissage» or «Professionnalisation» Contract.
- **Rhythm:** 3 days at university / 2 days in a research laboratory or a company.
- **Digital Careers Work-Study Forum:** every spring, a job fair to help you find your apprenticeship placement.

➤ ORGANIZATION

- **Pedagogy:** lectures, presentations by external experts and project-based learning.
- **Total hours / Assignments / Tuition fees:** see website.

