

## POST-GRADUATE OPPORTUNITIES

Companies in France and internationally (start-ups, R&D, big four Web companies, etc.) are interested in **NLP** and the encoding of textual and multimedia information (sound and text), which leads to a multitude of applications: machine translation, human-machine dialogue, automatic summarisation, opinion detection, E-learning (e.g., automatic generation of exercises for language learning), automatic text simplification, etc.

## NLP MASTER GRADUATES - WHAT HAVE THEY BECOME?

### YEVGENI BERZAK (2010)

PhD, post-doc at MIT, Cambridge, Massachusetts

### CÉDRIC BEUZIT (2012)

Project Manager at Success Software Services, Ho Chi Minh

### MARIA BORITCHEV (2017)

PhD at Inria, Nancy

### ANNA CURREY (2016)

PhD at University of Edinburgh

### NICOLAS FEUILLET (2013)

Senior NLP Data Scientist at Rakuten, Paris

### LAURINE HUBER (2018)

PhD at Loria-Olki, LUE, Nancy

### KASEY KENNINGTON (2011)

Assistant Professor, Boise University, Boise Idaho

### ANDREAS KIRKEDAL (2011)

Senior Speech Research Scientist, Copenhagen

### MARTIN KROON (2016)

PhD at Leiden University

### ANGELIKI LAZARI (2012)

Researcher at Deep Mind, London

### ALICE LEUNG (2016)

Computer technician RealSelf, Seattle

### JIRKA MARŠÍK (2013)

Computer technician Oracle, Prague

### PIERRE MERCURIALI (2016)

PHD at Loria, Nancy

### SARA VAN DE MOOSDIJK (2014)

Solution Architect at IA Amazon, Melbourne

### SHASHI NARAYAN (2011)

Research Scientist at Google AI, London

### SAI QIAN (2009)

Researcher at Jiangxi Academy of Sciences, China

### CAMILLE SAUDER (2013)

Linguist engineer at Yseop, Paris

## APPLY, SAVE THE DATES!

### ACADEMIC-YEAR ORGANISATION

- Beginning of the academic year: beginning of September
- 1<sup>st</sup> year, 1<sup>st</sup> semester: September to January
- 1<sup>st</sup> year 2<sup>nd</sup> semester: January to June
- 2<sup>nd</sup> year, 1<sup>st</sup> semester: September to February
- 2<sup>nd</sup> year, 2<sup>nd</sup> semester: internships in industry or laboratories between February and September

The master consists of theoretical and practical coursework all throughout the program. A supervised small-group project is completed during the first year, and a more important group project is carried out the second year. An optional internship may be taken on between the first and second year.

## STUDYING IN NANCY

Nancy is a university city which is very diverse and offers high-quality educational programs. Situated in the culturally-rich Lorraine region, there are many natural parks and outdoor activities close by.

### Ideal geographic location

- > 1.5 hours from Paris and Strasbourg by the TGV train
- > Close proximity to the German, Belgium, and Luxembourg borders
- > 1 hour by car from the Massif des Vosges (ski, hiking...)

### A State-of-the-art campus

- > totally renovated in 2019
- > at walking distance from the center-city, and from the famous Stanislas Square
- > 10 minutes by foot from the train station

### Active student-life

- > Crous Lorraine (scholarships, room and board, healthcare)
- > Leisure activities: concert venues, big events, museums, theaters, cinemas
- > Sports with the SUAPS (University Service of Physical Activities and Sports)

And also, in order to better accommodate international students:

- > Welcome to Nancy service at the University of Lorraine
- > Survival Guide of past NLP masters students
- > ESN Association (International Exchange Erasmus Student Network)

## INFORMATION AND STUDENT APPLICATION



### IDMC

Pôle Lorrain de Gestion  
13, rue Michel Ney | CO 40075  
F-54037 Nancy Cedex  
P. 03 72 74 16 24  
M. idmc-contact@univ-lorraine.fr  
M. idmc-master-tal@univ-lorraine.fr

### Head of the master

maxime.amblard@univ-lorraine.fr

### NLP master's Secretary

karine.weisse@univ-lorraine.fr  
P. 03 72 74 16 22

[www.idmc.univ-lorraine.fr](http://www.idmc.univ-lorraine.fr)

Facebook.com/IDMC.Nancy - Twitter.com/IDMC\_Nancy

**IDMC** Institut des sciences du Digital  
Management & Cognition

INSTITUT UNIVERSITAIRE DU NUMÉRIQUE

## HIGHLIGHTS

**MASTER OF SCIENCE DEGREE**

**120 ECTS CREDITS**  
(European Credits Transfer System)

**INDUSTRY AND RESEARCH ORIENTED DEGREE**

**TUITION FEES**  
€330 UE citizen  
(€3 770 otherwise)

**DURATION: 1-2 years**  
**LANGUAGE: English**

**LOCATION**  
Nancy  
(1h30 train ride from Paris)

## ABOUT THE PROGRAM

At the intersection of information technology, mathematics, linguistics, and artificial intelligence, **Natural Language Processing**, is a rapidly expanding scientific domain, with increasing opportunities in industry, research, and teaching...

With the explosion of digital information, it has become an important issue to train future computer engineers and researchers capable of making use of data, just as much for commercial purposes (e-commerce, recommendation systems, automatic summary, and multi-lingual translations) as it is for social applications (e-learning, opinion detection, behavior prediction, etc.).

Studying NLP involves the study of:

- **linguistics**: what rules define a language?
- **computer science**: how to program models that convert textual data to numerical data and vice versa?

It also involves diving into:

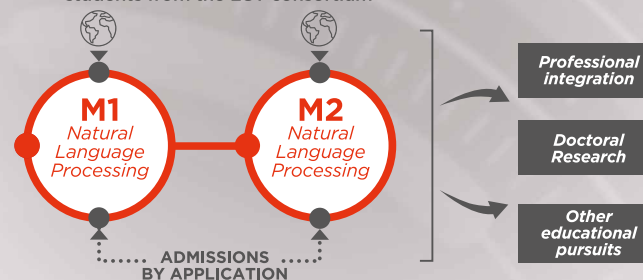
- **Artificial intelligence**: from probabilities and statistics to neural networks and machine learning,
- **Formal methods for rigorous reasoning**, by studying programming logic of computer programs,
- **Human and social sciences** in order to integrate concepts from these domains into the development of current technologies.

## ADMISSIONS REQUIREMENTS

Admissions by application is available. Applications are examined in January, March, May, June and August every year.  
**Places are limited.**

## PROGRAM ORGANISATION

Integration of international students including students from the LCT consortium



## MSc DEGREE IN NLP: AN INTERNATIONALLY ORIENTED PROGRAM

Conducted entirely in English, the **MSc Degree in NLP** is just as accessible for French as for international students.

Each year, the entering class is composed of equal numbers of non-francophones coming from countries all over the world, which creates an ongoing cultural exchange.

The program also welcomes students from two Erasmus Mundus programs created by the European Union:

- the Language and Communication Technology (LCT) Master
- And the EMLex Master's in Lexicography

Students in the **NLP** program may take advantage, on a selective basis, of a study abroad semester during the first year of the program, as a part of our Erasmus agreements with Dublin, Trento, Malta, Budacrest, and Osnabruk.

Students also have the opportunity to carry out their 2<sup>nd</sup> year, 2<sup>nd</sup> semester internship in a company or laboratory abroad.



## COURSEWORK

### Mathematics and computer science

Logics, probability, statistics, algorithms, programming, software engineering

### Artificial intelligence

Speech processing, semantic web (intelligent research in natural language), text processing (sentiment analysis), neural networks, data science, recommendation systems

### Linguistics, social sciences and humanities

Linguistics, language sciences, lexicology, lexical resources, language communication, ethics and laws

### From theory to practice

- 1 year-long project on an open research question during Master 1
- 1 year-long project during Master 2
- 6 months of internship in the second year of the master's
- 1 optional internship between the 1<sup>st</sup> and 2<sup>nd</sup> year

## WHY ENROLL IN THE NLP MSc DEGREE?

- > Recognized and renowned program that offers interdisciplinary skills in high demand by industry, research and the academic world, in France and internationally
- > Exciting and booming scientific domain
- > International accessibility to the coursework: classes in English, students coming from all over the world
- > Link with 4 laboratories of computer science and humanities and social sciences: ATILF, INRIA-NGE, LORIA, MSHL
- > Internships in industry or in a laboratory

## 4 COMPUTER SCIENCE, HUMANITIES AND SOCIAL SCIENCES RESEARCH LABORATORIES LINKED TO THE UNIVERSITY

ATILF - Analysis and Information Processing of the French Language (UMR 7118)

INRIA - Nancy Grand-Est

LORIA - Lorraine Laboratory of Information technology Research and its Applications (UMR 7503)

MSHL - House of Humanitary Sciences of Lorraine