## Timothee Mickus

#### PERSONAL DATA

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**19**1 SOCIAL:







#### Publications & Communications

MAY 2023	"Dozens of Translation Directions or Millions of Shared Parameters? Comparing Two
	Types of Multilinguality in Modular Machine Translation"

M. Boggia, S.-A. Grönroos, N. A. Loppi, T. Mickus, A. Raganato, J. Tiedemann, R. Vázquez. To be presented at NoDaLiDa 2023.

"Idiosyncratic Frequency as a Measure of Derivation vs Inflection" **DEC 2022** 

М. СОРОТ, Т. MICKUS & O. BONAMI. In Journal of Language Modeling.

"How to Dissect a Muppet: The Structure of Transformer Embedding Space." **SEPT 2022** 

T. MICKUS, D. PAPERNO & M. CONSTANT. In Transactions of the ACL.

"Semeval-2022 Task 1: CODWOE - Comparing Dictionaries and Word Embeddings" **JUL 2022** 

T. MICKUS, K. VAN DEEMTER, M. CONSTANT & D. PAPERNO; oral online presentation at SemEval 2022 workshop

(co-located with NAACL 2022).

"About Neural Networks and Writing Definitions" **DEC 2021** 

T. MICKUS, D. PAPERNO & M. CONSTANT; oral online presentation at DSNA 2021 conference.

"A Game Interface to Study Semantic Grounding in Text-Based Models" AUG 2021

T. MICKUS, M. CONSTANT & D. PAPERNO; oral online presentation at Games & NLP (co-located with IEEE COG).

**DEC 2020** "What Meaning-Form Correlation Has to Compose With"

T. MICKUS, T. BERNARD & D. PAPERNO; oral online presentation at COLING 2020 conference.

"Génération Automatique de Définitions pour le Français" JUN 2020

T. MICKUS, M. CONSTANT & D. PAPERNO; oral online presentation at TALN 2020 conference.

"What do you mean, BERT? Assessing BERT as a Distributional Semantics Model" JAN 2020

T. MICKUS, D. PAPERNO, M. CONSTANT & K. VAN DEEMTER; oral presentation at SCIL 2020 conference.

**SEP 2019** "Mark my Word: a Sequence-to-sequence Approach to Definition Modeling"

T. MICKUS, D. PAPERNO & M. CONSTANT; oral presentation at DL4NLP workshop (NODALIDA 2019); presented

as a poster to CLIN 2020.

"Distributional Effects of Gender Contrasts Across Categories" JAN 2019

T. MICKUS, O. BONAMI & D. PAPERNO; presented as a poster at Scil 2019 conference.

## **WORK EXPERIENCE**

APR 2022-Now Postdoctoral Researcher at University of Helsinki, Helsinki

Machine Translation and explainable NLP, part of the FoTran and Uncertainty-Aware Neural Language

Models projects.

AUG 2018-SEP 2018 Web & NLP Engineer at ELDA, Paris; Development—Web Annotation Interface

Nov 2017-Jul 2018 NLP Data Scientist at ESPRITS COLLABORATIFS, Paris area; NLP-R&D

Nov 2015-Nov 2017 Software Contractor at Spirica, Paris; Development—Life Insurance Web Application

OCT 2015-Nov 2017 R&D Engineer at MIDDLEWARE FACTORY, Paris area; Computer Programming—R&D

## **EDUCATION**

#### **INTERNSHIPS**

Reinforcement learning implementation of communication games.

NLP Intern at Université Paris Diderot, Paris Nov 2017-Jul 2018

Distributional Semantics Models approaches applied to French morphology of gender.

NLP Intern at Université Paris Diderot, Paris JAN 2016-JUN 2016

Compute and compare average conditional entropy over n-grams for two corpora (French and Mauritian

Creole).

NLP Intern at LIPN, UNIVERSITÉ PARIS 13, Paris area JUN 2015-SEP 2015

Corrective maintenance for the Hybride project (ANR-11-BS002-002 2011-2015) for extracting symptoms from

scientific articles on rare diseases. Hyperparameters optimization (Java & Bash).

# SCHOOL CURRICULUM

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OCT 2018-MAR 2022	PHD. in COMPUTER SCIENCE, ATILF, Université de Lorraine, Nancy TITLE: "On the Status of Word Embeddings as Implementations of the Distributional		
	Hypothesis"		
	Investigations on the linguistic value of word embeddings. Using NLG to study the relation between distributional semantic representations and traditional dictionary definitions.		
Jan 2022	WINTER SCHOOL IN MACHINE LEARNING, ALPS 2022, Online		
JUL 2019	SUMMER SCHOOL IN MACHINE LEARNING, DeepLearn 2019, Warsaw		
JUL 2018	Master of Science in Computational Linguistics, Université Paris Diderot, Paris		
<b>3</b> 00 - 0.00	GPA: 16.95/20, summa cum laude, rank not available. Thesis subject: "Grammatical Gender Contrasts in French: a distributional semantic approach".		
JUL 2016	Undergraduate Degree in Computational Linguistics, <b>Université Paris Diderot</b> , Paris GPA: 15.287/20, <i>cum laude</i> , ranked 1 <sup>st</sup> .		
JUL 2015	Bachelor of Science in Computational Linguistics, <b>Université Paris Diderot</b> , Paris GPA: 16.66/20, <i>summa cum laude</i> , ranked 1 <sup>st</sup> .		
SCIENTIFIC OUTREACH			
TEACHING			
Mar 2023-Apr 2023	Lectures on Natural Language Understanding, at UNIVERSITY OF HELSINKI as part of the Master's Programme in Linguistic Diversity and Digital Humanities.		
Nov 2020-Feb 2021	Lectures on Word Embeddings and Data Mining, at Université de Lorraine		
	as part of the "Lexical Resources" class of the M.Sc. in NLP.		
OCT 2020-JAN 2021	Practical Lectures on <b>Programming</b> (Python), at Université de Lorraine		
	as part of the "Algorithmics & Programming" class of the M.Sc. in NLP.		
Ост 2020-DEC 2020	Practical Lectures on <b>Web Development</b> , at Université de Lorraine html, css, JavaScript.		
Nov 2020-Dec 2020	Practical Lectures on Office Automation, at Université de Lorraine		
	Topics covered: Word processor software, Web search.		
Nov 2020	Practical Lectures on <b>Shell</b> and LTEX, at Université de Lorraine as part of the "Lexical Resources" class of the M.Sc. in NLP.		
Nov 2019-Jan 2020	Lectures on <b>Word Embeddings</b> and <b>Data Mining</b> , at UNIVERSITÉ DE LORRAINE as part of the "Lexical Resources" class of the M.Sc. in NLP.		
OCT 2019-JAN 2020	Practical Lectures on <b>Programming</b> (Python), at UNIVERSITÉ DE LORRAINE as part of the "Algorithmics & Programming" class of the M.Sc. in NLP.		
AUG 2019	Tutor for PYTHON4NLP Summer School, Nancy Providing help and guidance to attendees on presented python APIS & NLP libraries.		
Nov 2018-Dec 2018	Lectures on <b>Word Embeddings</b> and <b>Multilingual Resources</b> , at UNIVERSITÉ DE LORRAINE as part of the "Lexical Resources" class of the M.Sc. in NLP.		
Other Administrative Duties			
Jun 2021-Jul 2022	Organizer for the SemEval 2022 Shared Task on Comparing Embeddings & Dictionaries URL: https://github.com/TimotheeMickus/codwoe		
Apr 2021-Dec 2021	Member of the strategic committee "Université - Recherche - Santé"		
MAR 2021-JUL 2021	Organizer for the Cafétal NLP Reading Group, at ATILF		
Jun 2020-Aug 2020	Supervised two NLP interns (Masters 1 students)		
	Internship topic: preliminary work for establishing comparable sets of word embeddings; corresponding publication under review.		
FEB 2019-JUL 2019	Organizer for the NLP Reading Group, at UNIVERSITÉ DE LORRAINE		
PUBLIC OUTREACH			
Nov 2021	Demo stand for the BlankCrack game at the FORUM DES SCIENCES COGNITIVES 2021 À NANCY.		
JUL 2021–SEP 2022	Personal blog: "My PhD, explained to my folks"		
Language Skills			