

# Timothee MICKUS

## PERSONAL DATA

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## PUBLICATIONS & COMMUNICATIONS

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### PEER-REVIEWED PUBLICATIONS

- DEC 2020 “What Meaning-Form Correlation Has to Compose With”  
T. MICKUS, T. BERNARD & D. PAPERNO; oral online presentation at COLING 2020 conference.  
URL: <https://www.aclweb.org/anthology/2020.coling-main.333/>
- JUN 2020 “Génération Automatique de Définitions pour le Français”  
T. MICKUS, M. CONSTANT & D. PAPERNO; oral online presentation at TALN 2020 conference.  
URL: <https://hal.archives-ouvertes.fr/hal-02784756>
- JAN 2020 “What do you mean, BERT? Assessing BERT as a Distributional Semantics Model”  
T. MICKUS, D. PAPERNO, M. CONSTANT & K. VAN DEEMTER; oral presentation at Scil 2020 conference.  
URL: <https://scholarworks.umass.edu/scil/vol3/iss1/34/>
- 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. URL: <http://svn.nlpl.eu/outreach/dl4nlp/2019/W19-0501.pdf>
- JAN 2019 “Distributional Effects of Gender Contrasts Across Categories”  
T. MICKUS, O. BONAMI & D. PAPERNO; presented as a poster at Scil 2019 conference.  
URL: <https://scholarworks.umass.edu/scil/vol2/iss1/19/>

### OTHER COMMUNICATIONS

- FEB 2021 **Video Presentation:** “Dictionaries, Word Vectors and Online Games”, as part of the progress assessment meeting of the OLKI project
- APR 2019 **Talk:** “Entre plongements lexicaux et dictionnaires: la génération automatique de définitions”, as part of the “Intelligence Artificielle” ATILF seminary
- MAR 2019 **Poster:** “5 things you can do with a dictionary (other than fitting the height of your computer screen)”, as part of the “IA, Langage & Citoyens” OLKI meeting

## INTERNSHIPS

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- FEB 2020–MAR 2020 NLP Intern at AIST AIRC, Tokyo  
Reinforcement learning implementation of communication games. Experiments to determine necessary factors for grounded compositional language emergence, study of existing metrics of compositionality.
- NOV 2017–JUL 2018 NLP Intern at UNIVERSITÉ PARIS DIDEROT, Paris  
Distributional Semantics Models approaches applied to French morphology of gender. Use of word embeddings and statistical analysis to explain facts relevant to gender assignment of French agent nouns.
- JAN 2016–JUN 2016 NLP Intern at UNIVERSITÉ PARIS DIDEROT, Paris  
Implementation of a Bash & Python application to compute and compare average conditional entropy over n-grams for two corpora (French and Mauritian Creole).
- JUN 2015–SEP 2015 NLP Intern at LIPN, UNIVERSITÉ PARIS 13, Paris area  
Corrective maintenance for the Hybride project (ANR-11-BS002-002 2011-2015) for extracting symptoms from scientific articles on rare diseases. Hyperparameters optimisation (Java & Bash).

## EDUCATION

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- OCT 2018–NOW PHD. in COMPUTER SCIENCE, ATILF, **Université de Lorraine**, Nancy  
TITLE: “Generating Definitions and Semantic properties of words with Deep Learning and Rich Lexical Resources”  
Using NLG to study the relation between distributional semantic representations and traditional dictionary definitions.
- JUL 2019 SUMMER SCHOOL in MACHINE LEARNING, **DeepLearn 2019**, Warsaw  
Classes followed: “Using Neural Networks for Modeling and Representing Natural Languages”, “Understanding the Brain with Machine Learning”, “Deep Generative Models”, “Knowledge Discovery from Complex Data with Deep Learning”, “Adversarial Machine Learning”, “Representation Learning in Limited Data Settings”, “Explainable Artificial Intelligence”, “Causal Models for Making Sense of Data”.

JUL 2018	Master of Science in COMPUTATIONAL LINGUISTICS, <b>Université Paris Diderot</b> , Paris GPA: 16.95/20, <i>summa cum laude</i> , 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> . End-of-year project: “Word Sense Disambiguation using a Semantic Network”.
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> . End-of-year project: “Levenshtein distance-based spell-checker”.

## ADMINISTRATIVE RESPONSIBILITIES

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### TEACHING

NOV 2020–FEB 2021	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 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.
OCT 2020–DEC 2020	Practical Lectures on <b>Web Development</b> , at UNIVERSITÉ DE LORRAINE HTML, CSS, JavaScript)
NOV 2020–DEC 2020	Practical Lectures on <b>Office Automation</b> , at UNIVERSITÉ DE LORRAINE Topics covered: Word processor software, Web search
NOV 2020	Practical Lectures on <b>Shell</b> and <b>TEX</b> , 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 Setting up working environments (virtual machines, miniconda, git). Providing help and guidance to attendees on presented python APIs & libraries (NLTK, BeautifulSoup, spacy, sklearn...).
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 2020–AUG 2020	Supervised two NLP interns (Masters 1 students) Internship topic: preliminary work for establishing comparable sets of word embeddings.
FEB 2019–JUL 2019	Organizer for the NLP Reading Group, at UNIVERSITÉ DE LORRAINE URL: <a href="https://timotheemickus.github.io/reading_group">https://timotheemickus.github.io/reading_group</a>

## WORK EXPERIENCE

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AUG 2018–SEP 2018	Web & NLP Engineer at ELDA, Paris; <i>Development–Web Annotation Interface</i> Implementation of a web document annotation application & data-mining.
NOV 2017–JUL 2018	NLP Data Scientist at ESPRITS COLLABORATIFS, Paris area; <i>NLP–R&amp;D</i> Word embeddings (word2vec), statistical analysis, clustering, classification & probabilistic models.
NOV 2015–NOV 2017	Software Contractor at SPIRICA, Paris; <i>Development–Life Insurance Web Application</i> Management of a marshalling and proxyfication framework. Development of an XML search tool.
OCT 2015–NOV 2017	R&D Engineer at MIDDLEWARE FACTORY, Paris area; <i>Computer Programming–R&amp;D</i>

## PRACTICAL SKILLS

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COMPUTER SKILLS	Python 3 (pytorch, NLTK, django...) , Java 8 (JEE, JSF), JavaScript (jQuery), C/++, Bash (sed, awk, grep...), R, XML, XSD, xpath, CSS, HTML, SQL, Unix (Ubuntu), OpenOffice, <del>TEX</del>
LANGUAGES	French & English (native), German (limited working proficiency), Japanese (basic knowledge); notions of Nahuatl, Latin, Ancient Greek, Arabic...