

Urchade Zaratiana

PHD STUDENT

Paris, France

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Education

Université Paris 13

Paris, France

PHD IN COMPUTER SCIENCE

Jul 2021 - present

- In-going PhD thesis at Laboratoire Informatique de Paris Nord (LIPN) under the RCLN team. My thesis subject is entity and relation extraction on scientific texts.
- Topics: Natural Language Processing, Structured Prediction, Deep Probabilistic Graphical Models
- Advisors: Dr. Nadi Tomeh and Prof. Thierry Charnois

Johannes Kepler University

Linz, Austria

MASTER PROGRAM IN COMPUTER SCIENCE

2019 - 2020

- Courses: Deep Learning and Neural Nets, NLP with Deep Learning, Probabilistic models, Multimedia Information Retrieval, Deep Learning in life sciences. (python, pytorch)
- Selected project: Abstractive text summarization for French. Advisor: Dr. Navid Rekab-saz

Institut Supérieur d'Electronique de Paris

Paris, France

SOFTWARE ENGINEERING DEGREE

2017 - 2020

- Courses: Advanced algorithmics and programming, Artificial Intelligence, Web programming. (python, keras, java, javascript)
- Selected project: Home automation website. Advisor: Dr. Rafael Angarita

Professional Experience

FI GROUP

Paris, France

RESEARCH SCIENTIST

Dec 2020 - present

- I am at FI Group as part of my PhD study under "CIFRE" contract.
- Selected projects: Cross-lingual search and QA, Keyphrase extraction on scientific texts, scientific taxonomy construction. (python, pytorch, transformers, FAISS)
- Open source contribution: pytorch-struct library.

ASTEK

Paris, France

RESEARCH INTERN

Feb 2020 - Jul 2020

- My research focused on the adaptation of pretrained language models such as BERT for web article recommendation. Advisor: Alexandre Pascault

EDF

Paris, France

DATAVIZ INTERN

Nov 2018 - Jan 2019

- I worked on various DataViz projects for different teams of the EDF Insular Energy Systems Division. Advisor: Benoit Georges

Preprint

Urchade Zaratiana, Nadi Tomeh, Pierre Holat, Thierry Charnois. *GLiNER: Generalist Model for Named Entity Recognition using Bidirectional Transformer*. <https://arxiv.org/abs/2311.08526>.

Urchade Zaratiana, Nadi Tomeh, Pierre Holat, Thierry Charnois. *An Autoregressive Text-to-Graph Framework for Joint Entity and Relation Extraction*. [Under Review](#).

Urchade Zaratiana, Nadi Tomeh, Pierre Holat, Thierry Charnois. *Extractive Question Answering with Soft Structural Biases*. [Under Review](#).

Urchade Zaratiana, Nadi Tomeh, Pierre Holat, Thierry Charnois. *Lost or Liberated? A Dive into Bidirectional Transformer LMs Without Positional Encoding*. [Under Review](#).

Conference papers

Urchade Zaratiana, Nadi Tomeh, Niama El khabir, Pierre Holat, Thierry Charnois. *Filtered Semi-Markov CRF*. Accepted at [EMNLP 2023](#).

Niama El khabir, **Urchade Zaratiana**, Nadi Tomeh, Pierre Holat, Thierry Charnois. *Cross-Dialectal Named Entity Recognition in Arabic*. [Arabic Natural Language Processing Conference 2023](#).

Yann Dauxais, **Urchade Zaratiana**, Matthieu Laneuville, Simon Hernandez, Pierre Holat and Charlie Grosman, 2022. Towards Automation of Topic Taxonomy Construction. [Symposium on Intelligent Data Analysis 2022](#).

Workshop papers

Urchade Zaratiana, Nadi Tomeh, Pierre Holat, Thierry Charnois. *An Autoregressive Text-to-Graph Framework for Joint Entity and Relation Extraction*. Workshop on Structured Probabilistic Inference Generative Modeling @ [ICML 2023](#).

Urchade Zaratiana, Niama El Khabir, Dennis Núñez, Pierre Holat, Nadi Tomeh, Thierry Charnois. *DyREx: Dynamic Query Representation for Extractive Question Answering*. 2nd Workshop on Efficient Natural Language and Speech Processing @ [Neurips 2022](#).

Urchade Zaratiana, Niama El Khabir, Dennis Núñez, Pierre Holat, Nadi Tomeh, Thierry Charnois. *Extractive Question Answering with Dynamic Query Representation for Free*. Transfer Learning for NLP Workshop @ [Neurips 2022](#).

Urchade Zaratiana, Nadi Tomeh, Pierre Holat, Thierry Charnois. *GNNer: Reducing Overlapping in Span-based NER Using Graph Neural Networks*. SRW @ [ACL 2022](#).

Urchade Zaratiana, Nadi Tomeh, Niama El khabir, Pierre Holat, Thierry Charnois. *Global Span Selection for Named Entity Recognition*. In Proceedings of the Workshop on Unimodal and Multimodal Induction of Linguistic Structures (UM-IoS) @ [EMNLP 2022](#).

Urchade Zaratiana, Nadi Tomeh, Pierre Holat, Thierry Charnois. *Named Entity Recognition as Structured Span Prediction*. In Proceedings of the Workshop on Unimodal and Multimodal Induction of Linguistic Structures (UM-IoS) @ [EMNLP 2022](#).

Student supervision

2023	Mehdi Saissi Hassani , Research intern on "Benchmarking open-source large language models for retrieval augmented question answering in French"	<i>Paris, France</i>
2022	Dennis Núñez Hernandez , Research intern on "Data-efficient architecture for extractive question answering"	<i>Paris, France</i>