# Urchade Zaratiana

#### Member of technical staff at Fastino

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## Professional Experience \_

**Fastino** Reunion Island Jul 2024 - present

#### MEMBER OF TECHNICAL STAFF

• Conducting research on Small Language Models (SLMs).

**FI GROUP** Paris. France Dec 2020 - Jul 2024 RESEARCH SCIENTIST

• I was a research scientist at FI Group as part of my PhD study "CIFRE" contract.

 Selected projects: Knowledge Graph Construction, Cross-lingual search and QA, keyphrase and entity extraction on scientific texts, scientific taxonomy construction. (python, pytorch, transformers, Large Language Models (LLMs))

**ASTEK** Paris, France

Feb 2020 - Jul 2020 RESEARCH INTERN

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

### 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, Combinatorial optimization, Probabilistic graphical models, Graph generation
- 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

# Selected publications \_\_\_\_\_\_

Urchade Zaratiana, Nadi Tomeh, Pierre Holat, Thierry Charnois. 2023. GLiNER: Generalist Model for Named Entity Recognition using Bidirectional Transformer. Annual Conference of the North American Chapter of the Association for Computational Linguistics, (NAACL 2024).

Urchade Zaratiana, Nadi Tomeh, Pierre Holat, Thierry Charnois. 2024. An Autoregressive Text-to-Graph Framework for Joint Entity and Relation Extraction. Proceedings of the 38th AAAI Conference on Artificial Intelligence, (AAAI 2024).

Urchade Zaratiana, Nadi Tomeh, Niama El khabir, Pierre Holat, Thierry Charnois. 2023. Filtered Semi-Markov CRF. In Findings of the Association for Computational Linguistics: (EMNLP 2023).

Student	supervision	
2023	<b>Mehdi Saissi Hassani</b> , Research intern on "Benchmarking open-source large language models (LLMs) for retrieval augmented question answering in French".	Paris, France
2022	<b>Dennis Núñez Hernandez</b> , Research intern on "Data-efficient architecture for extractive question answering".	Paris, France
Awards_		
2023	1st position at Wojood Named Entity Recognition Shared task at ArabNLP@EMNLP 2023, Our system is build on models (github.com/urchade/Filtered-Semi-Markov-CRF) we developed in prior research on span-based Named Entity Recognition.	Singapore
2024	2nd position at Multilingual AI-generated Text Detection Shared task at SemEval 2024, Our system is entitled "A Syntactically Motivated Architecture for Multilingual Machine-Generated Text Detection".	Mexico city