

SIMON LUPART

PhD Candidate in Information Retrieval and Machine Learning

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I am a **second-year PhD candidate in Information Retrieval** at the University of Amsterdam, working with Prof. Dr. Evangelos Kanoulas and Dr. Mohammad Aliannejadi. I worked previously for two years in NLP and IR at Naver Labs Europe. I received my Master from Grenoble INP Ensimag after a 6-month Erasmus at the Imperial College London.

EXPERIENCE

PhD Candidate in Conversational AI Oct 2023–Today
University of Amsterdam [Amsterdam, NL]

- Learning Representations for Conversation Search, distillation from LLMs to IR models, to improve effectiveness and efficiency.
- LLM-synthetic conversations generation for unsupervised training (Llama3, Mistral, GPT) of Conversational and Agentic models.

Research Engineer in IR Nov 2021–Jun 2023
Naver Labs Europe [Grenoble, FR]

- Work on Neural Information Retrieval focusing on sparse models (SPLADE) within the Search and Recommendation team.
- Studies on the robustness of neural retrievers (dense and sparse) when faced to distributions shifts and adversarial techniques.

Research Intern in NLP May 2021–Oct 2021
Aix-Marseille University x Naver Labs Europe [Marseille, FR]

- Zero-Shot classification of biomedical documents. Comparison of pre-trained architectures (BioBERT), and multi-tasks learning.

Machine Learning Engineering Intern Jun 2020–Aug 2020
Safran Aircraft Engines [Paris, FR]

- Prognostics & Health Monitoring. Modeling with Machine Learning the oil engine circuit variables, to predict wear phenomena.

PUBLICATIONS

- [SIGIR 2025] **DiSCo: LLM Knowledge Distillation for Efficient Sparse Retrieval in Conversational Search**. The 48th International ACM SIGIR Conference on Research and Development in IR. **S. Lupart**, M. Aliannejadi, E. Kanoulas.
- [SIGIR 2025] **Conversational Gold: Evaluating Personalized Conversational Search System using Gold Nuggets**. The 48th International ACM SIGIR Conference on Research and Development in IR. Z. Abbasiantaeb, **S. Lupart (equal contribution)**, L. Azzopardi, J. Dalton, M. Aliannejadi.
- [SIGIR 2025] **Reproducing NevIR: Negation in Neural Information Retrieval**. The 48th International ACM SIGIR Conference on Research and Development in IR. C. van den Elsen, F. Barkhof, T. Nijdam, **S. Lupart**, M. Aliannejadi.
- [ECIR 2024] **On the Challenges of Differentiable Search Index in Conversational IR**. The 46th European Conference on Information Retrieval (Workshop on Search Futures). **S. Lupart**, M. Aliannejadi, E. Kanoulas.
- [ICTIR 2023] **Towards Query Performance Prediction for Neural Information Retrieval: Challenges and Opportunities**. The 9th ACM SIGIR / 13th International Conference on the Theory of Information Retrieval. G. Faggioli, T. Formal, **S. Lupart**, S. Marchesin, S. Clinchant, N. Ferro, B. Piwowarski.
- [SIGIR 2023] **A Static Pruning Study on Sparse Neural Retrievers**. The 46th International ACM SIGIR Conference on Research and Development in IR. C. Lassance, **S. Lupart**, H. Déjean, S. Clinchant, N. Tonello.
- [ECIR 2023] **MS-Shift: An Analysis of MS MARCO Distribution Shifts on Neural Retrieval**. The 45th European Conference on Information Retrieval. **S. Lupart**, T. Formal, S. Clinchant.
- [ECIR 2023] **A Study on FGSM Adversarial Training for Neural Retrieval**. The 45th European Conference on Information Retrieval. **S. Lupart**, S. Clinchant.
- [AAAI 2022] **Zero-Shot and Few-Shot Classification of Biomedical Articles in Context of the COVID-19 Pandemic**. The 36th AAAI Conference on AI (Workshop SDU@AAAI22). **S. Lupart**, B. Favre, V. Nikoulina, S. Ait-Mokhtar.

EDUCATION

Erasmus Exchange (Master AI)
Imperial College London

Sep 2020 – Apr 2021 · London, UK

- Machine Learning and Deep Learning, CV, NLP and Reinforcement Learning Courses

Master of Engineering
ENSIMAG Computing/Math Eng. School

Sep 2018 – Jul 2021 · Grenoble, FR

- Applied mathematics, Statistical modelling

Preparatory classes MPSI MP*
CPGE Louis Thuillier

Sep 2016 – Jul 2018 · Amiens, FR

TEACHING

Summer School Hackathon Volunteer · 15th European Summer School on IR, **ESSIR'24**
Teaching Assistant · Master Courses TA at UvA: Information Retrieval 1 & 2

PROGRAMMING

Python · Libraries: Pytorch, Huggingface
R, C++, C, Java