# Omar ABEDELKADER

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 • omarabedelkader.github.io

#### About Me

I am a dedicated AI researcher with extensive experience in machine & deep learnning , natural language processing (NLP), and software engineering. Currently pursuing a Ph.D. in Computer Science at the University of Lille, I have a strong academic foundation, holding an M.Sc. in Natural Language Processing and a B.Sc. in Data Science.

#### Education

University of Lille Villeneuve-d'Ascq, Hauts-de-France
Ph.D in Computer Science

University of Lorraine Nancy, Meurthe-et-Moselle
M.Sc. in Natural Language Processing

Lebanese University Beyrouth, Liban
Sept. 2019 – Sept. 2022

B.Sc. in Data Science

#### Experience

AI Researcher

INRIA

Villeneuve d'Asq, HDF

Oct. 2024 – Oct. 2027

- Improving code completion and generation using LLMs, specifically targeting the Pharo programming language, which has limited training data.
- Developing techniques for code completion, type inference, and deployment in Pharo's IDE, with a focus on runtime performance.

AI Engineer

INERIS

Verneuil-en-Halatte, Oise
Sept. 2023 – Sept. 2024

- Developing "INERIS-IA," a tool to classify textual documents based on INERIS's strategic goals using ML and NLP techniques
- Create boolean queries for document retrieval, and improve corpus quality through document similarity and keyword extraction.

Intern - AI Researcher Villetaneuse, Paris LIPN June 2023 - Aug. 2023

- Comparison of various sampling techniques for probabilistic planning, particularly in generating literary narratives.
- Evaluate different methods, including the Score Function Estimator (SFE) and more advanced techniques like Gumbel-Softmax, to assess their effectiveness in creating coherent and creative stories.

#### Technologies & Skills

Programming Languages: Python, Pharo, Java, R, JavaScript, PHP, MySQL.

Machine Learning & Deep Learning: TensorFlow, Keras, Scikit-learn

Natural Language Processing (NLP): SpaCy, NLTK

Big Data & Distributed Systems: Apache Spark, Hadoop

Data Analysis & Visualization: Pandas, NumPy, Matplotlib, Seaborn

Frameworks & Tools: Django, MongoDB, AWS, PyCharm

Operating Systems: MacOS, UNIX, Windows

Scientific Computing: SciPy, NumPy

Research Areas: LLMs, Code Generation, Type Inference.

# Volunteering

Ministère Écologie Territoires: Contributor in Club IA et Transition écologique

Conseil National du Numerique (CNNum): Contributor in Café IA

## **Hobbies**

Water Activities: Swimming · Diving

Outdoor and Adventure Sports: Climbing · Skiing · Skydiving

Creative and Artistic Activities: Photography
Precision Sports: Boxing · Bowling · Golf

## References

Available on Request



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