# Omar ABEDELKADER

 ♥ Lille, France
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### About Me

I am an AI researcher with extensive experience in artificial intelligence and software engineering. I am currently pursuing a Ph.D. in Computer Science at the University of Lille.

#### Education

University of Lille Villeneuve-d'Ascq, Nord

Oct. 2024 - Present

Ph.D in Computer Science

University of Lorraine Nancy, M&M

Sept. 2022 - Sept. 2024

M.Sc. in Natural Language Processing Lebanese University Beirut, Lebanon

Sept. 2019 - July 2022

B.Sc. in Data Science

# Experience

AI Researcher

Villeneuve d'Ascq, Nord Oct. 2024 - Oct. 2027

INRIA

- 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

Verneuil-en-Halatte, Oise

INERIS

Sept. 2023 - Sept. 2024

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

## Intern - AI Researcher

Villetaneuse, SSD

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.

#### Awards and Honors

Best Paper Award (3rd place), IWST 2025, Gdańsk, Poland

"Package-Aware Approach for Repository-Level Code Completion in Pharo"

#### **Talks**

ChatPharo: An Open Architecture for Understanding How to Talk Live to LLMs, ESUG 2025

Presentation: Slides **Z** Video: Coming soon

#### Mentorship

Google Summer of Code (GSoC), Mentor

Project Link

## Technologies & Skills

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

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

Natural Language Processing (NLP): SpaCy, NLTK

Big Data & Distributed Systems: Apache Spark, Hadoop

Data Analysis & Visualization: Pandas, Matplotlib, Seaborn

Scientific Computing: NumPy, SciPy

Web Development: Flask, Django, Laravel, ReactJS

Databases & Cloud: MongoDB, MySQL, AWS
Operating Systems: macOS, UNIX, Windows

Research Areas: Artificial Intelligence, Software Engineering

# Volunteering

NeuroTech-Lille: President

Ministère de la Transition Écologique: Contributor in Club IA et Transition écologique

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

Croix-Rouge Française: Volunteer First Aider

#### **Hobbies**

Water Activities: Swimming · Diving

Outdoor and Adventure Sports: Hiking · Skiing · Skydiving

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

## Language

French: Native English: B2



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