

Omar ABEDELKADER

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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 <i>Ph.D in Computer Science</i>	<i>Oct. 2024 – Present</i>
University of Lorraine Nancy, M&M <i>M.Sc. in Natural Language Processing</i>	<i>Sept. 2022 – Sept. 2024</i>
Lebanese University Beirut, Lebanon <i>B.Sc. in Data Science</i>	<i>Sept. 2019 – July 2022</i>

Experience

AI Researcher INRIA	<i>Villeneuve d'Ascq, Nord</i> <i>Oct. 2024 – Oct. 2027</i>
<ul style="list-style-type: none">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	<i>Verneuil-en-Halatte, Oise</i> <i>Sept. 2023 – Sept. 2024</i>
<ul style="list-style-type: none">Developing "INERIS-IA," a tool to classify textual documents based on INERIS's strategic goals using ML and NLP techniquesCreating boolean queries for document retrieval, and improve corpus quality through document similarity and keyword extraction.	
Intern - AI Researcher LIPN	<i>Villetaneuse, SSD</i> <i>June 2023 – Aug. 2023</i>
<ul style="list-style-type: none">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.	

Projets

ChatPharo

- ChatPharo is an intelligent conversational assistant integrated into the Pharo IDE. It allows developers to interact with their environment using natural language. More than just a chat interface, ChatPharo can dynamically query and execute information in the development environment, leveraging system tools and AI to assist and accelerate software development in Pharo..
- GitHub Repository:** [GitHub](#) 

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](#) [↗](#)

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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