



Hiba Ajabri

Software Engineer — Ph.D Student involved in RODIC project

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Profil

Software Engineer from the National School of Computer Science and Systems Analysis ([ENSIAS](#) ). I have three years of research experience as **Ph.D Student** in the context of an **industrial project** ([RODIC](#) ) , carried out at **Nantes University** and **LS2N** Laboratory.

Work Experience

Software Engineer—Ph.D student






LS2N-Nantes University

Nantes, France

Jan 2023 – Jan 2026

Thesis subject: Performance Evaluation of Executable Domain-Specific Languages.

Thesis context: RODIC ANR Project, Nantes, France.

- Demonstrating a novel idea, about how to define the key performance indicators for Executable DSLs, through a manufacturing case study. ([see more](#) .
- Implementing a novel approach to enable domain experts to query the execution traces of executable domain-specific languages (xDSLs).([see more](#) .
- Available on [GitLab](#) /[Zenodo](#) /[Journal Article](#) .

Software Engineer—Researcher Intern

LS2N- Nantes University:

Nantes, France

Feb 2022 – Aug 2022

Performance Benchmarking of Executable Domain-Specific Languages. ([see report](#) .


- Analysis and Problem Statement.
- Project management and organization.
- Project background set up.
- State of art establishment.
- Functional study and analysis.
- Design: Describing the approach overview to allow the performance evaluation of an executable domain-specific language.
- Implementation: Creation of an industrial executable domain language and implementation of KPI formulas, in order to allow modeling and simulating industrial systems and providing performance feedback.
- Presentation of some of the paths explored during the research phase before arriving at the final solution.

Software Engineer Intern

Maroc Telecom:

Rabat, Morocco

June 2021 – Aug 2021

Development of an application for monitoring the activities and working times of consultants.([see report](#) .

- Understand requirements and functional study: Identify roles and use cases and analyze the needs of the project manager and consultants.
- Design: Application architecture through UML sequence and activity diagrams and database design.
- Technical study of the project and used technologies.
- Implementation: set up the application considering the identified roles and the different scenarios.

Education

PhD in Computer Science

Jan 2023 – Jan 2026

- *Nantes University - LS2N, Nantes, France.*

Software Engineer

Sept 2019 – Sept 2022

- National School of Computer Science and System Analysis (ENSIAS), Rabat, Morocco.

Student at CPGE

Sept 2017 – Sept 2019

- Mathematics, Physics, Preparatory Classes - CPGE, Meknes, Morocco.




Baccalaureate Certificate

Sept 2016 – Sept 2017

- Mathematical Sciences, Azrou, Morocco.

Research Experience





Publications

- Hiba Ajabri, Jean-Marie Mottu, Christian Attiogbé, Pascal Berruet. Navigating the trace of executable domain specific languages through a trace domain query language.. The Journal of Object Technology, 2025, The 21st European Conference on Modelling Foundations and Applications (ECMFA 2025), 24 (2), pp.1-15. [10.5381/jot.2025.24.2.a8](https://doi.org/10.5381/jot.2025.24.2.a8) .
- Hiba Ajabri, Jean-Marie Mottu, Christian Attiogbé, Pascal Berruet. An open source software artefact, Trace Domain Query Language, published in the Zenodo repository [10.5281/zenodo.15183457](https://doi.org/10.5281/zenodo.15183457) .
- Hiba Ajabri, Jean-Marie Mottu, Erwan Bousse. Defining KPIs for Executable DSLs: A Manufacturing System Case Study. 12th International Conference on Model-Based Software and Systems Engineering (MODEL-SWARD 2024), Feb 2024, Rome, Italy. pp.169-178, [10.5220/0012361000003645](https://doi.org/10.5220/0012361000003645) .

Dissertation

- **PhD Thesis: Performance Evaluation using executable Domain-Specific Language.** Under Supervision of Prof. Christian Attiogbé, Dr. Jean-Marie Mottu, and Prof. Pascal Berruet. Sept 2025 – current
- **Engineering Thesis: Performance Benchmarking of Executable Domain-Specific Languages.** Under Supervision of Prof. Mahmoud Nassar, Dr. Jean-Marie Mottu, Dr. Erwan Bousse and Dr. Massimo Tisi. Feb 2022 – Aug 2022

Research collaborations & communication

- **Visiting the ICUBE laboratory at INSA in Strasbourg and IUT Strasbourg.** Animating a workshop consisting of a tutorial on our innovative tool, a query language: Trace Domain Query Language.(see more ). April 2025
- **Visiting the Lab-STICC at the University of Bretagne Sud(UBS) in Lorient** Leading a Workshop to introduce Model-Driven Engineering (MDE) and the Eclipse GEMOC Studio environment.(see more ). May 2024
- **JDOC (Journée des doctorants)** Oral presentation and article submission at JDOC Day, organized by the MASTIC Doctoral School.(see more ). June 2024
- **Poster - Internship** Poster presentation in the context of my research internship, titled "Performance Benchmarking of Executable Domain-Specific Languages".(see more ). July 2022

Outreash & Volunteering

- External reviewer of 6th International Workshop on Modeling Language Engineering ([MLE 2024](#) ), September, 2024 Co-located with MODELS 2024 conference. Summer 2024
- External reviewer of the 5th International Workshop on Modeling Language Engineering ([MLE 2023](#) ), October 1, 2023 Co-located with MODELS 2023 conference. Summer 2023
- Student Volunteer in the Software Technologies: Applications and Foundations conference ([STAF](#) ). Summer 2022



Honors & Awards

- **Best Student Paper Award** [🔗](#) from the 12th International Conference on Model-Based Software and Systems Engineering (**MODEL-SWARD 2024** [🔗](#)), October 1, 2023 Co-located with MODELS 2023 conference. *Feb 2024*
- **Big Data Engineer Mastery Award** [🔗](#) from the IBM Academic. *Feb 2022*
- Ranked **692** out of 2485 admitted candidates in the MP (Math & Physics) stream for the 2019 Morocco National Common Competitive Examination. *Summer 2019*



Teaching & Mentoring

2023-2024

- Teaching the «Design Pattern» in Software Engineering, using the Kotlin language. (2nd year students, Bachelor in computer science)
- Teaching the «Automata and Languages» in Software Engineering, using the Kotlin language. (2nd year students, Bachelor)
- Teaching the «Software Testing» with the JUnit framework. (1st year students)
- ([see more](#) [🔗](#)).

</> Computer Skills

Languages: Java, OCL, ATL, Xtend, Kermeta 3, XMI, UML.

Frameworks: Eclipse Modeling Framework (EMF), Xtext, Sirius, Spring Boot, Angular Frameworks.

Development Environment: Eclipse ecosystem, GEMOC studio, Visual Studio Code, [Git](#) [🔗](#).



Core Professional Values



Language Skills

Seriousness

Respect

English: Fluent.

French: Fluent.

Arabic: Fluent.