

Research Experience

October 2017 – **PhD thesis in Data Science at LaBRI CNRS, Université de Bordeaux.**

September **Topic:** “*Optimizing Skyline Queries in Dynamic Contexts*”, advised by Sofian Maabout.

2020 **Summary:** Skyline queries are relevant tools for Data Analysis. However, their implementation in Big and Dynamic Data contexts is challenging due to their computational complexity. In this thesis, we addressed these challenges through designing efficient index structures and algorithms.

Softwares made during the thesis (available on GitHub): NSC, MSSD, dySky.

Stack: C++, OpenMP, Spark Streaming, Python.

Published papers (short list):

- The Negative Skycube (*Information Systems journal*)
- A Framework for Skyline Queries Over Streaming Data (*Data and Knowledge Engineering journal*)

March 2017 – **Research Internship for Master degree at LIMOS CNRS.**

July 2017 **Topic:** “*Generation and Querying of Evolving Graphs*”, advised by R. Ciucanu & E. Mephu Nguifo.

Software made during this work (available on GitHub): EGG.

Stack: Python, Scipy lib.

Published papers (short list):

- EGG: A Framework for Generating Evolving RDF Graphs (*ISWC 2017*)

Industrial Experience

Dec. 2013 – **Integration and maintenance Engineer, Capgemini .**

Jan. 2016 Automation and scheduling of processes. Stack: Perl, Autosys scheduler, SQL Server

Jan. 2016 – **Integration and maintenance Engineer, AXA Technology Services.**

Aug. 2016 Automation and scheduling of processes. Stack: Perl, Tivoli Workload Scheduler (TWS), SQL Server

University Course

oct. 2017 – **PhD in Computer Science, LaBRI CNRS, Université de Bordeaux, FRANCE.**
sept. 2020

2016 – 2017 **Master in Data and Information Systems.**

Université Clermont Auvergne, FRANCE

2010 – 2013 **Engineering degree in Computer science.**

ENSIAS, Université Mohamed 5, MOROCCO

Scientific Skills

Data management, Algorithms, Complexity theory, Data mining, Machine learning, Semantic Web, Graphs.

Technical Skills

OS **Linux (LPI 1 certification).**

Programming **C++, Python, Java, Perl, C, JavaScript.**
(ordered by
experience)

DB Systems **Relational (PostgreSQL, Oracle, MySQL), NoSQL (Neo4j, MongoDB, JSON, RDF, XML) & Distributed (Hive).**

Teaching Experience

2018 – 2019 **University of Bordeaux.**

- Linux initiation (IUT 1st year)
- Oracle DBMS administration(IUT 2nd year)
- Advanced principles in relational databases. (Master 1st year)

2019 – 2020 **University of Bordeaux.**

- Algorithms and data structure. (Licence 2nd year)
- Advanced principles in relational databases. (Master 1st year)

Social activities

Secretary of AFODIB, *Association of doctoral students in computer science of Bordeaux.*

Workshops, *Supervising Maths à Modeler workshops*, Introducing Algorithms to middle school students..

Language Skills

English **TOEIC Score: 915/990, Level: C2.**

French/Arabic **Native.**

Web profile

Personal website **<https://karimalami7.github.io/>.**

LinkedIn **<https://www.linkedin.com/in/karim-alami-44042b62/>.**

GitHub **<https://github.com/karimalami7>.**

ResearchGate **https://www.researchgate.net/profile/Karim_Alami.**