

# Karim ALAMI

41, rue du général Bordas, appt 98

33400 Talence

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PhD Candidate in Computer Science at LaBRI CNRS, Université de Bordeaux. Working on optimization of preference queries/data filtering in high dimensionality/cardinality, and dynamicity.

✉ karim.alami@u-bordeaux.fr

29 years old

## 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 We design algorithms and data structures able to deal with changes in data semantics for accelerating the processing of skyline queries.

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

- NSC. Fastly Maintainable Index structure in presence of dynamic data

- MSSD. A framework for streaming data

- dySky. A Highly Parallelizable algorithm in case of dynamic orders

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 (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).**

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## Teaching Experience

- 2018 – 2019 **University of Bordeaux.**
- Linux initiation (IUT 1<sup>st</sup> year)
  - Oracle DBMS administration(IUT 2<sup>nd</sup> year)
  - Advanced principles in relational databases. (Master 1<sup>st</sup> year)
- 2019 – 2020 **University of Bordeaux.**
- Algorithms and data structure. (Licence 2<sup>nd</sup> year)
  - Advanced principles in relational databases. (Master 1<sup>st</sup> year)

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## 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..

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## Language Skills

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

French/Arabic **Native.**

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## 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](https://www.researchgate.net/profile/Karim_Alami).