

First name: Mohamed Mahdi

Name: Malik

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Curriculum Vitæ

Education and training

- January 2010 : Phd. (Very honorable mention). Specialty: Natural Language Processing (NLP). *Nominal predicative structures in English: acquisition of lexical data for automatic text analysis* . Laboratoire d'Informatique Fondamentale, Marseille, France.
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- October 2003: DEA. Specialty: NLP. *Highlighting relationships between biological entities using predicative structures from a corpus of indexed texts* , Laboratoire d'Informatique Fondamentale de Marseille, France.
- February 2001: Computer engineer in computer. *Design and creation of a graphical editor for the SADT method in Java language*, Batna, Algeria.

Computer and language skills

- C/C++, Java, Python, Perl, Delphi, Prolog, Pascal, SQL, SQLplus , MySQL, Oracle, html, xhtml , XML, OCaml , Fortran.
- Windows, Linux.
- Arab. (Very good)
- French. (Very good)
- English. (Good)

Professional experiences

- Associate Professor.

Place

- Abbes Laghrour University, Khenchela , Algeria.

Modules taught

- Information Retrieval and Monitoring: Course + practical work (2019-2024)
- Scientific Research Methodologies: Course + practical work (2020-2024)
- Scientific Writing: 2022-2023
- Date Warehouses and Data Mining: Course + TD + TP (2015-2021) M1 STW, Sem2
- Language Theory: course + tutorial (2015-2018, 2020-2024) L2, Sem1
- Information Retrieval: Courses + tutorial (2018-2020)
- Algorithmics and data structures 3: 2022/2023
- Decision Support Systems: course + practical work (2015/2016, 2016/2017) L3 ISIL, Sem1
- Logic Programming: Course +TP (2012-2015, 2018-2020) L3 SI S1

- Network security : Course + tutorial (2013/2014, 2014/2015) L3 networks, Sem2
- Functional programming: TP (2012/2013), L1, Sem2
- Fortran 90: Course + tutorial + practical work (2012/2013, 2013/2014) M1 chemistry, Sem2
- Advanced Fortran 90: Course + practical work (2014/2015) M2 chemistry, Sem1
- Coding and representation: TD (2012/2013), L1, Sem1
- Programming and data structures 1: TD + TP (2013/2014), L1, Sem1
- Programming and data structures 2: TD (2014/2015), L1, Sem2
- Computer science for chemistry 1: 2014-2015, 2018-2020
- Fortran 90 Advanced: 2014-2015
- Introduction to Fortran 90: 2011-2014

Master's supervision

- Master 2022/2023: "A classification method based on association rules: Application to thyroid cancer. »
- Master 2021/2022: "A method based on association rules for highlighting factors involving thyroid cancer from a corpus labeled in English. »
- Master 2019/2020: "SAD: A Method for the rootization of verbs in Algerian dialect. »
- Master 2018/2019: "OXXILS: A Tool for the eXtraction and Exploitation of Linguistic and Syntactic Information. »
- Master 2015/2016: "Association rules: a method for enriching electronic resources"
- Master 2014/2015: " SLO an ontology for the study of verbal and nominal syntactic patterns and highlighting the different inferences linking them"
- Master 2012/2013: "An approach for the extraction of biological terms: Application to the Medline Corpus"

- **Research Engineer** (04/01/2011 – 09/30/2011)

Place

- University of Paris Ouest Nanterre La Défense within the MoDyCo laboratory (Models, Dynamics, Corpus).

Knowledge and work

- Knowledge management: Construction of a glossary for international standards in the field of societal security + design of an ontology representing the relationships between the different concepts belonging to this field.
- RDF, RDFSchema , XML, Perl, Protégé.

- **Teacher-developer** (10/2003 – 01/2010)

Places

- University of Aix-Marseille II, France.
- University Institute of Technology, Aix-en-Provence, France.

Modules taught

- Computer architecture.
- Object-oriented programming.
- Introduction to computer science.
- C programming.
- Pascal programming.

Knowledge and work

- design and creation of Oracle databases (Enterprise Manager, SQLplus , iSQLPlus , etc.)

- development of Perl programs allowing the Extraction of Information from text corpora.
- Perfect mastery of regular expressions.

Management

- Co-supervision of a group of students during their Master 1 (TER) project. This project aimed to create a program that detects plagiarism on the Internet. The project was carried out mainly with Perl.

- **Internship (03/2003 – 09/2003)**

Place

Fundamental Computer Science Laboratory, Marseille, France.

Goals

- The internship focused on highlighting relationships between biological entities using the INTEX linguistic development environment.
- Design and creation of grammatical models for Information Extraction.

Environments: C, Perl.

- **Internship (04/2002 – 09/2002)**

- This internship aimed to define the Semantic Web as well as all the concepts that compose it (XML, RDF, ontology, etc.) and see how fuzzy logic can be used in the Semantic Web or in the search for Information through the construction of ontologies.
- I have developed analysis programs using the principles of fuzzy logic to analyze the textual and colorimetric content of web pages. (University Department of Biomathematics, Medical and Epidemiological Statistics, Faculty of Medicine, Marseille.)

Environments: Java, C, XML.

- **IT maintenance manager (02/2001–09/2001)**

I supervised and trained teams of 2 to 5 people in order to deal with hardware, software and network problems of an IT park – installation and maintenance – (Algeria)

- **Computer Science Teacher (09/1998–11/2000)**

I taught the fundamentals of computer science: algorithms, software installation, maintenance, etc. (Algeria)

Hobbies

Programming, new technologies, motor sports (Formula 1, MotoGP , Rally), cycling, swimming, walks, nature.

Research profile

- Member of the ICOSI laboratory since 2013.
- Member of a PRFU project whose title is: “New approaches to artificial intelligence, combinatorial optimization, machine learning and data mining for the analysis, management and mining of large databases” and this since 2020.

Scientific publications

- Mohamed Mahdi MALIK, Hichem HAOUASSI, *Efficient sequential covering strategy for classification rules mining using a discrete equilibrium optimization algorithm*, Journal of King Saud University - Computer and Information Sciences, Volume 34, Issue 9, 2022, Pages 7559-7569, ISSN 1319-1578, <https://doi.org/10.1016/j.jksuci.2021.08.032>.
- Chouaib Maarouk1, Hichem Haouassi, Mohamed Mahdi Malik, Karima Saidi, *Hybrid Grey Wolf Optimizer and Elitism Genetic Algorithm for Multi-objective IoT Service Placement in Fog Computing Environment*, First International Conference on Advances in Electrical and Computer Engineering (ICAECE'2023) Tebessa - ALGERIA
- Malik M. M., Royauté J., *A Predicate Database for Assisting the Design of a Lexicon-grammar of Predicative Nouns*, Lecture Notes in Artificial Intelligence LNAI, ed. Z. Vetulani and H. Uszkoreit (eds.), pp. 312-324, 2009.
- Malik MM, Royauté J., *PredicateDB : A tool for assisting the creation of a lexicon-grammar of Predicative Nouns*. *Proceeding of the 3rd Language & Technology Conference (LTC)*, 2007, pp. 250-254. Poznan, Poland .
- Godbert E., Malik MM, Royauté J., *Analysis of predicative forms in biomedical texts, for the identification of gene interactions*. *Proceedings of the 8th Open Days Biology Computer Science Mathematics (JOBIM)*, 2007, pp. 81-86. Marseille, France.
- Royauté .J , Godbert .E, Malik .M .M, *Identifying relations between scientific objects within predicate structures*. *Proceedings of the International Conference on Recent Advances in Natural Language Processing (RANLP)*, Poster Session, 2007, pp. 515-519 , Bulgaria.
- Royauté .J , Godbert .E, Malik .M .M, *Analyze predicative structures to relate scientific objects*. *Proceedings of the 10th International Conference on Electronic Documents (CIDE)*, 2007, pp. 51-60. Nancy .
- Royauté .J , Godbert .E, Malik .M .M, *Predicative Nominal Groups: use of a Link Grammar for Information Extraction*. *Proceedings of the Natural Language Processing (NLP) conference*, 2006, pp 276-286. Leuven, Belgium.
- Malik M. M. and Royauté J., *Verbal predicates and nominal predicates linking names of biological entities*, *Proceedings of the 8th INTEX/ NooJ Days*, Presses Universitaires de Franche Comté, 2005, pp. 41-42. Besançon.