

# Samir Amir

*Data Scientist, R&D Team Leader*

## PERSONAL DETAILS

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<i>Home page</i>	<a href="https://www.linkedin.com/in/samir-amir">https://www.linkedin.com/in/samir-amir</a>
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## RESEARCH INTERESTS

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Machine Learning, Natural Language Processing.

## EDUCATION

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**Ph.D. in Computer Science**, Lille University of Science and Technology. 2008-2011

- Research Field: NLP, Machine Learning.

**M.S.E in Computer Science**, University of Rennes. 2005-2006

- Research Field: Data Integration, Machine Learning

**Engineer Degree**, University of Blida. 2000-2005

- Research Field: Data Science.

## WORK EXPERIENCE

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**Data Scientist, R&D Team Leader**, ContentSide,<sup>1</sup> France. Dec 2015 - present

- PAPUD (Profiling and Analysis Platform Using Deep Learning) project<sup>2</sup> initiator and work package leader.
- Design and implementation of innovative solutions based on Data Science
- Application Areas: e-commerce, online news, social network, human resources.
- Experience: machine learning, Semantic Web, NLP, Java, Python.
- Leading several work packages as part of several European projects.

**Data Scientist**, ISH,<sup>3</sup> France. 2015

- Text mining (classification, retrieval, search, ...)
- Development of intelligent search engine.
- Experience: NLP, machine learning, Java, Python.

**Postdoctoral Fellow**, University of Lyon 1, France. 2013-2014

- Manager of the research project CEDAR.<sup>4</sup>
- Recommender system using Machine Learning
- Query rewriting and optimization using reasoning.
- Implementation of CEDAR Semantic Web reasoner.
- Experience: reasoning, RDF knowledge graph, Semantic Web, Triplestore, Java.

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<sup>1</sup><https://www.contentside.com/>

<sup>2</sup><https://itea3.org/project/papud.html>

<sup>3</sup><https://www.ish-lyon.cnrs.fr/>

<sup>4</sup><http://cedar.liris.cnrs.fr/>

**Research and Teaching Assistant**, University of Lille 1, France.

2011-2012

- Text Mining, Machine Learning.
- Data Science and Python programming Courses

**Research Engineer**, CNRS.<sup>5</sup>

2008-2011

- Data-modeling, specification and integration, CAM4Home project.<sup>6</sup>
- Development of an automatic data integration algorithm.
- Ontology matching and query rewriting.

**Research Engineer**, Thomson Corporate Research.

2006-2007

- Color conversion method for multi-primary display.
- Optimizing spectral color reproduction.

## TEACHING EXPERIENCE

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University of Lille 1

2008-2012

*Database, Java, and C++ programming*

University of Lyon 1

2013-2014

*Database, Web programming, Semantic Web, and Web Technologies.*

University of Lyon 1, University of Lille 1

2008-2014

*Supervised master theses and internships.*

## MANAGEMENT AND REVIEW ACTIVITIES

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- Work package leader for several European projects (ITEA-PAPUD 2018-2021, ITEA-CAM4Home 2007-2010, ITEA-MIDAS 2008-2011, ...)
- Project initiator (ITEA, H2020, ANR,...)
- Conference and Journal Reviewing: COSI 2013, CSWS 2013, IJWET, IJCIT, ISC2 2017, ....
- Workshop Organizing: Big-Data Forum 2014, Lyon, COSI 2015
- Program Committee: ISCSE 2011, ISCSE 2013, COSI 2014.

## PUBLICATIONS

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### Journal Publications

- Tanguy Raynaud, Samir Amir, and Rafiqul Haque. A generic and high-performance RDF instance generator. *Int. J. Web Eng. Technol.*, 11(2):133–152, 2016
- Samir Amir and Hassan Aït-Kaci. An Efficient and Large-Scale Reasoning Method for the Semantic Web. *J. Intell. Inf. Syst.*, 2016
- Samir Amir, Adrian Tanasescu, and Djamel A. Zighed. Sentence Similarity based on Semantic Kernels for Intelligent Text Retrieval. *J. Intell. Inf. Syst.*, 2016
- Hassan Aït-Kaci and Samir Amir. Classifying and Querying Very Large Taxonomies with Bit-Vector Encoding. *J. Intell. Inf. Syst.*, 2015

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<sup>5</sup>French National Centre for Scientific Research: <http://www.cnrs.fr/>

<sup>6</sup><https://itea3.org/project/cam4home.html>

- Samir Amir, Ioan Marius Bilasco, and Mika Rautiainen. CAM4Home : A Generic Ontology for a Rich Multimedia Experience. *International Journal of Computer Applications*, 67(12):19–25, April 2013
- Samir Amir, Ioan Marius Bilasco, and Chabane Djeraba. Mumie: Multi-level metadata mapping system. *Journal of Multimedia*, 6(3):225–235, 2011

### Book Chapters

- Samir Amir, Marius Bilasco, Md. Haidar Sharif, and Chabane Djeraba. Towards a Unified Multimedia Metadata Management Solution. In Zongmin Ma, editor, *Intelligent Multimedia Databases and Information Retrieval: Advancing Applications and Technologies*, pages 170–194. IGI Global, 2012
- Samir Amir, Marius Bilasco, Thierry Urruty, Jean Martinet, and Chabane Djeraba. Designing intelligent content delivery frameworks using MPEG-21. In Harry Agius and Marios Angelides, editors, *The Handbook of MPEG Applications: Standards in Practice*, page ch. 19. John Wiley and Sons Ltd, 2010

### Conference Publications

- Samir Amir, Adrian Tanasescu, and Djamel Abdelkader Zighed. Une mesure de similarité entre phrases basée sur des noyaux sémantiques. In *EGC 2016, 18-22 Janvier 2016, Reims, France*, pages 141–146, 2016 (French)
- Samir Amir and Hassan Aït-Kaci. Cedar: Efficient reasoning for the semantic web. In *SITIS 2014, Marrakech, Morocco, November 23-27, 2013, 2014*
- Samir Amir and Hassan Aït-Kaci. CEDAR: a fast taxonomic reasoner based on lattice operations. In *Proceedings of the ISWC 2013 Demonstrations Track, Sydney, Australia, October 23, 2013*, pages 9–12, 2013
- Samir Amir, Yassine Benabbas, Ioan Marius Bilasco, and Chabane Djeraba. Mumie: a new system for multimedia metadata interoperability. In *Proceedings of the 1st International Conference on Multimedia Retrieval, ICMR 2011, Trento, Italy, April 18 - 20, 2011*, page 1, 2011
- Samir Amir, Ioan Marius Bilasco, Thierry Urruty, and Chabane Djeraba. Mumie : Une approche automatique pour l'interopérabilité des métadonnées. In *Extraction et gestion des connaissances (EGC'2011), Actes, 25 au 29 janvier 2011, Brest, France*, pages 347–352, 2011 (French)
- Samir Amir, Ioan Marius Bilasco, Thierry Urruty, and Chabane Djeraba. Vers une Interopérabilité Multi-Niveaux des Métadonnées. In *INFORSID 2011, Lille, France, May 2011* (French)
- Yassine Benabbas, Samir Amir, Adel Lablack, and Chabane Djeraba. Human action recognition using direction and magnitude models of motion. In *VISAPP 2011 - Proceedings of the Sixth International Conference on Computer Vision Theory and Applications, Vilamoura, Algarve, Portugal, 5-7 March, 2011*, pages 277–285, 2011
- Ismail Elsayad, Jean Martinet, Thierry Urruty, Thierry, Samir Amir, and Chabane Djeraba. Effective object-based image retrieval using higher-level visual representation. In *International Conference on Machine and Web Intelligence (ICMWI), 2010*, pages 218–224, Algiers, Algeria, October 2010
- Samir Amir, Ioan Marius Bilasco, Taner Danisman, Ismail Elsayad, and Chabane Djeraba. Multimedia metadata mapping: towards helping developers in their integration task. In *MoMM'2010 - The Eighth International Conference on Advances in Mobile Computing and Multimedia, 8-10 November 2010, Paris, France*, pages 205–212, 2010

- Ismail Elsayad, Jean Martinet, Thierry Urruty, Samir Amir, and Chabane Djeraba. Toward a higher-level visual representation for content-based image retrieval. In *MoMM'2010 - The Eighth International Conference on Advances in Mobile Computing and Multimedia*, 8-10 November 2010, Paris, France, pages 213–220, 2010
- Ioan Marius Bilasco, Samir Amir, Patrick Blandin, Chabane Djeraba, Juhani Laitakari, Jean Martinet, Eduardo Martínez-Gracia, Daniel Pakkala, Mika Rautiainen, Mika Ylianttila, and Jiehan Zhou. Semantics for intelligent delivery of multimedia content. In *Proceedings of the 2010 ACM Symposium on Applied Computing (SAC)*, Sierre, Switzerland, March 22-26, 2010, pages 1366–1372, 2010
- Samir Amir, Ioan Marius Bilasco, Taner Danisman, Thierry Urruty, Ismail El Sayad, and Chabane Djeraba. Schema matching for integrating multimedia metadata. In *International Conference on Machine and Web Intelligence (ICMWI)*, 2010, pages 234–239, Algiers, Algeria, October 2010
- Samir Amir, Ioan Marius Bilasco, Taner Danisman, Thierry Urruty, and Chabane Djeraba. Semi-Automatic Multimedia Metadata Integration. In Corcho O. Volker J., editor, *Proceedings of the EKAW 2010 Poster and Demo Track*, CEUR Workshop Proceedings, page art 10, Lisboa, Portugal, 2010
- Samir Amir, Marius Ioan Bilasco, and Chabane Djeraba. A Semantic Approach to Metadata Management in Sensor Systems. In Daniel Krob, editor, *Cognitive systems with interactive sensors (COGIS)*, Paris, France, 2009. La Société de l'Electricité et de l'Electronique et les technologies de l'information et de la communication
- Samir Amir. Un système d'intégration de métadonnées dédiées au multimédia. In *Actes du XXVIIème Congrès INFORSID*, Toulouse, France, 26-29 mai 2009, pages 491–492, 2009 (French)
- E. Flécher, S. Amir, M. Babel, and O. Déforges. Lar video : Lossless video coding with semantic scalability. In *ICSES 2006 Int. Conf. on Signals and Electronic Systems*, pages 227–230. ICSES, September 2006
- Samir Amir and Erwan Flecher. Lar video : codage video sans perte a scalabilité sémantique. In *CORESA 2006*, May 2006 (French)
- Yazid Cherfa, Cherfa Assia, and Samir Amir. Evaluation sans référence de la segmentation en contours. In *ISIVC 2006*, Tunisia, May 2006 (French)

## SKILLS

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<b>Platforms</b>	Linux, Mac OS, Windows
<b>IDEs</b>	Eclipse, NetBeans, MS Visual Studio, Pycharm, ...
<b>frameworks</b>	Hadoop, Spark, Spring, Gate, ...
<b>Programming</b>	Java/JEE, Python, SQL, RDF knowledge graph, SPARQL, ...

## ADDENDUM

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<b>Languages</b>	Arabic (native), French (fluent), English (fluent).
<b>References</b>	Available upon request (see also: <a href="https://www.linkedin.com/in/samir-amir">https://www.linkedin.com/in/samir-amir</a> ).