

# PERSONAL INFORMATION Riccardo Zese

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## **WORK EXPERIENCE**

#### 01/01/2016–Present Post-Doctoral Researcher

Università degli Studi di Ferrara - Engineering Department, Ferrara (Italy)

Probabilistic Knowledge Representation applied to Semantic Web, Automatic Reasoning on Structured Data, Machine Learning

# 01/10/2012–Present College / university teaching professional

Università degli Studi di Ferrara, Ferrara (Italy)

Teaching of Computer Science and Database using laboratory exercises which are side by side to lectures. Assistance to teachers of courses in Computer Science an Database.

## **EDUCATION AND TRAINING**

# 01/01/2013–31/12/2015 Doctor of Philosophy (Ph.D.) Student

Doctor of Philosophy (Ph.D.)

Università degli Studi di Ferrara - Engineering Department, Ferrara (Italy)

Graduated with mark Excellent.

Probabilistic Knowledge Representation applied to Semantic Web, Automatic Reasoning on Structured Data, Machine Learning

## 2010–2012 INGEGNERIA INFORMATICA E DELL'AUTOMAZIONE

2nd cycle degree -Master

Università degli Studi di Ferrara - Engineering Department, Ferrara (Italy)

Graduated with 110 cum laude.

Broadening and deepening of advanced computer knowledge, acquisition of methodologies related to the management of distributed systems and networks, software engineering, learning techniques for artificial intelligence, with particular attention to ontology languages for the Semantic Web

# 2007–2010 INGEGNERIA DELL'INFORMAZIONE (AUTOMAZIONE, ELETTRONICA, INFORMATICA, TELECOMUNICAZIONI)

1st level degree -Degree/Bachelor

Università degli Studi di Ferrara - Engineering Department, Ferrara (Italy)

Graduated with 110 cum laude.

Acquisition of basic knowledge of Computer Science, Automation, Electronics and Telecommunications, Economics and Law, with particular attention to issues of Web application development, analysis and management of data and management of enterprise servers and VoIP.

#### 2002–2007 INDUSTRIAL TECHNICAL CERTIFICATE

Secondary school

Istituto Tecnico Industriale Statale N. Copernico A. Carpeggiani, Ferrara (Italy)

# PERSONAL SKILLS

Mother tongue(s)

Italian





## Other language(s)

UNDERSTANDING		SPEAKING		WRITING		
Listening	Reading	Spoken interaction	Spoken production			
B2	C1	B2	B2	B2		
(B1) Preliminary English Test (PET) - University of Cambridge						

English

(B2) First Certificate in English (FCÉ) - University of Cambridge

Levels: A1 and A2: Basic user - B1 and B2: Independent user - C1 and C2: Proficient user

Common European Framework of Reference for Languages

## Organisational / managerial skills

I am able to work in strict collaboration with a team and independently on my own.

#### Job-related skills

Excellent knowledge of computer systems and major software packages.

Excellent knowledge of programming languages and techniques of computer engineering software.

Good knowledge of major languages and systems of artificial intelligence.

## Digital competence

SELF-ASSESSMENT						
Information processing	Communication	Content creation	Safety	Problem solving		
Proficient user	Proficient user	Proficient user	Proficient user	Proficient user		

## Digital competences - Self-assessment grid

Operating systems: Excellent

■ Programming languages: Excellent

■ Word processing: Excellent

■ Electronic spreadsheet: Good

Data base administrators: Excellent

CAD skills: Limited

■ MATLAB skills: Limited

■ Internet skills: Excellent

■ Data transmission networks: Good

■ Web-site creation: Excellent

■ Multimedia: Good

Programming languages known: Java, PHP, Ruby, Ruby on Rails, C, C++, Visual Basic, Mosel, Shell, javascript.

■ Modeling languages: VHDL, HTML, XML, OWL, RDF.

■ Good knowledge of OpenGL

Good knowledge of JavaBeans.

■ Excellent knowledge of TeX.

■ Achieved ECDL (European Computer Driving Licence) certificate.

#### Other skills

Academic Year 2015/2016: support to teaching activities in Database and Laboratory course. Department of Mathematics e Computer Science, Università degli Studi di Ferrara, Ferrara, Italy.

Academic Year. 2015/2016: support to teaching activities in Computer Science course. Engineering Department, Università degli Studi di Ferrara.

Academic Year 2014/2015: support to teaching activities in Database and Laboratory course. Department of Mathematics e Computer Science, Università degli Studi di Ferrara, Ferrara, Italy.



Academic Year. 2014/2015: support to teaching activities in Computer Science course. Engineering Department, Università degli Studi di Ferrara.

**First** in the assessment of the teaching of the Bachelor's degree course of Electronic and Computer Engineering of the University of Ferrara

January 2014: achievement of First Certificate in English FCE (B2 level), Ferrara

Academic Year 2013/2014: support to teaching activities in Database and Laboratory course. Department of Mathematics e Computer Science, Università degli Studi di Ferrara, Ferrara, Italy.

Academic Year. 2013/2014: support to teaching activities in Computer Science course. Engineering Department, Università degli Studi di Ferrara, Ferrara, Italy.

Academic Year 2012/2013: support to teaching activities in Database and Laboratory course. Department of Mathematics e Computer Science, Università degli Studi di Ferrara, Ferrara, Italy.

Academic Year 2012/2013: support to teaching activities in Computer Science course. Engineering Department, Università degli Studi di Ferrara, Ferrara, Italy.

September 2012: attendance at the meeting on the project "e-Policy". Università degli Studi di Bologna, Bologna, Italy.

February – March 2012: participation in the project of the Artificial Intelligence Research Group of the University of Ferrara for the development of an automatic reasoning algorithm for probabilistic ontologies. Engineering Department, Università degli Studi di Ferrara.

May 2010: participation in the project for the development of a Web application for the analysis and controll of VoIP traffic, deployment of a server VoIP. IT Office of Cento's town hall, Italy.

May 2010: attendance at the course "II D.Lgs. 196/03: Codice in materia di protezione dei dati personali". IT Office of Cento's town hall, Italy.

May 2007: achievement of ECDL certificate. Istituto Tecnico Industriale Statale N. Copernico A. Carpeggiani, Ferrara, Italy.

Academic Year 2006/2007: participation in the project "Accoglienza Matricole 2006/2007". Istituto Tecnico Industriale Statale N. Copernico A. Carpeggiani, Ferrara, Italy.

May 2006: achievement of Preliminary English Test Certificate PET (B1 level), Ferrara, Italy.

Academic Year 2005/2006: participation in the project "Accoglienza Matricole 2005/2006". Istituto Tecnico Industriale Statale N. Copernico A. Carpeggiani, Ferrara, Italy.

Academic Year 2004/2005: participation in the project "Accoglienza Matricole 2004/2005". Istituto Tecnico Industriale Statale N. Copernico A. Carpeggiani, Ferrara, Italy.

June 2004: achievement of Key English Test Certificate KET (A2 level). Ferrara, Italy.

Academic Year 2003/2004: support to teaching activities, project "Banca del Tempo". Istituto Tecnico Industriale Statale N. Copernico A. Carpeggiani, Ferrara, Italy.

## ADDITIONAL INFORMATION

#### **Publications**

- Elena Bellodi, Evelina Lamma, Fabrizio Riguzzi, Riccardo Zese, and Giuseppe Cota. A web system for reasoning with probabilistic OWL. Software: Practice and Experience, 2016.
- Fabrizio Riguzzi, Elena Bellodi, Evelina Lamma, Riccardo Zese, and Giuseppe Cota. Probabilistic logic programming on the web. Software: Practice and Experience, 2015
- Giuseppe Cota, Riccardo Zese, Elena Bellodi, Evelina Lamma, and Fabrizio Riguzzi. Learning probabilistic ontologies with distributed parameter learning. In Elena Bellodi and Alessio Bonfietti, editors, Proceedings of the Doctoral Consortium (DC) co-located with the 14th Conference of the Italian Association for Artificial Intelligence (AI\*IA 2015), 2015.
- Riccardo Zese, Elena Bellodi, Fabrizio Riguzzi, and Evelina Lamma. Tableau reasoners for probabilistic ontologies exploiting logic programming techniques. In Elena Bellodi and Alessio Bonfietti, editors, Proceedings of the Doctoral Consortium (DC) co-located with the 14th Conference of the Italian Association for Artificial Intelligence (AI\*IA 2015), 2015.
- Giuseppe Cota, Riccardo Zese, Elena Bellodi, Fabrizio Riguzzi, and Evelina Lamma. Distributed parameter learning for probabilistic ontologies. In Katsumi Inoue, Hayato Ohwada, and Akihiro Yamamoto, editors, 25th International Conference on Inductive Logic Programming (ILP 2015), 2015.
- Giuseppe Cota, Riccardo Zese, Elena Bellodi, Evelina Lamma, and Fabrizio Riguzzi. Structure Learning with Distributed Parameter Learning for Probabilistic Ontologies. In Jaakko Hollmen and Panagiotis Papapetrou, editors, Doctoral Consortium of the European Conference on Machine



- Learning and Principles and Practice of Knowledge Discovery in Databases, 2015.
- Marco Gavanelli, Evelina Lamma, Fabrizio Riguzzi, Elena Bellodi, Riccardo Zese, and Giuseppe Cota. An abductive framework for Datalog ontologies. In Thomas Eiter and Francesca Toni, editors, Technical Communications of the 31st Int'l. Conference on Logic Programming (ICLP 2015), CEUR Workshop Proceedings, Aachen, Germany, 2015. © by the authors, Sun SITE Central Europe.
- Marco Gavanelli, Evelina Lamma, Fabrizio Riguzzi, Elena Bellodi, Riccardo Zese, and Giuseppe Cota. Abductive logic programming for Datalog+/- ontologies. In Davide Ancona, Marco Maratea, and Viviana Mascardi, editors, Proceedings of the 30th Italian Conference on Computational Logic (CILC2015), Genova, Italy, 1-3 July 2015, CEUR Workshop Proceedings, Aachen, Germany, 2015. © by the authors, Sun SITE Central Europe.
- Riccardo Zese. Inference and Learning for Probabilistic Description Logics. In Qiang Yang and Michael Wooldridge, editors, Proceedings of the Twenty-Fourth International Joint Conference on Artificial Intelligence, Buenos Aires, Argentina, 25-31 July 2015, pages 4411-4412, Palo Alto, California USA, 2015. © International Joint Conferences on Artificial Intelligence, AAAI Press / International Joint Conferences on Artificial Intelligence.
- Fabrizio Riguzzi, Elena Bellodi, Evelina Lamma, and Riccardo Zese. Reasoning with probabilistic ontologies. In Qiang Yang and Michael Wooldridge, editors, Proceedings of the Twenty-Fourth International Joint Conference on Artificial Intelligence, Buenos Aires, Argentina, 25-31 July 2015, pages 4310-4316, Palo Alto, California USA, 2015. © International Joint Conferences on Artificial Intelligence, AAAI Press / International Joint Conferences on Artificial Intelligence.
- Riccardo Zese, Elena Bellodi, Evelina Lamma, and Fabrizio Riguzzi. Logic programming techniques for reasoning with probabilistic ontologies. In Odile Papini, Salem Benferhat, Laurent Garcia, and Marie-Laure Mugnier, editors, International Workshop on Ontologies and Logic Programming for Query Answering, 2015.
- Fabrizio Riguzzi, Elena Bellodi, Evelina Lamma, and Riccardo Zese. Probabilistic description logics under the distribution semantics. Semantic Web - Interoperability, Usability, Applicability, 6(5):447-501, 2015.
- Fabrizio Riguzzi, Elena Bellodi, Evelina Lamma, Riccardo Zese, and Giuseppe Cota. Learning probabilistic description logics. In Fernando Bobillo, Rommel N. Carvalho, Paulo C.G. Costa, Claudia d'Amato, Nicola Fanizzi, Kathryn B. Laskey, Kenneth J. Laskey, Thomas Lukasiewicz, Matthias Nickles, and Michael Pool, editors, Uncertainty Reasoning for the Semantic Web III, volume 8816 of Lecture Notes in Computer Science, pages 63-78. Springer International Publishing, © Springer International Publishing, 2014. The original publication is available at <a href="http://www.springerlink.com">http://www.springerlink.com</a>.
- Riccardo Zese, Elena Bellodi, Evelina Lamma, Fabrizio Riguzzi, and Fabiano Aguiari. Semantics and inference for probabilistic description logics. In Fernando Bobillo, Rommel N. Carvalho, Paulo C.G. Costa, Claudia d'Amato, Nicola Fanizzi, Kathryn B. Laskey, Kenneth J. Laskey, Thomas Lukasiewicz, Matthias Nickles, and Michael Pool, editors, Uncertainty Reasoning for the Semantic Web III, volume 8816 of Lecture Notes in Computer Science, pages 79-99. Springer International Publishing, © Springer International Publishing, 2014. The original publication is available at http://www.springerlink.com.
- Riccardo Zese. Learning Probabilistic Description Logics Theories. In Luigi Di Caro, Carmine Dodaro, Andrea Loreggia, Roberto Navigli, Alan Perotti, and Manuela Sanguinetti, editors, Proceedings of the Second Doctoral Workshop in Artificial Intelligence (DWAI 2014) An official workshop of the 13th Symposium of the Italian Association for Artificial Intelligence "Artificial Intelligence for Society and Economy" (Al\*IA 2014), Pisa, Italy, December 11, 2014, number 1334 in CEUR Workshop Proceedings, pages 13-22, Aachen, Germany, 2014. © by the authors, Sun SITE Central Europe.
- Fabrizio Riguzzi, Elena Bellodi, and Riccardo Zese. A history of probabilistic inductive logic programming. Frontiers in Robotics and Al, 1(6):1-5, © by the authors, 2014.
- Elena Bellodi, Evelina Lamma, Fabrizio Riguzzi, Vitor Santos Costa, and Riccardo Zese. Lifted variable elimination for probabilistic logic programming. Theory and Practice of Logic Programming, 14(Special issue 4-5 ICLP 2014):681-695, © Cambridge University Press, 2014.
- Zese, R.: Reasoning with Probabilistic Logics. ArXiv e-prints 1405.0915v2. An extended abstract / full version of a paper accepted to be presented at the Doctoral Consortium of the 30th International Conference on Logic Programming (ICLP 2014), July 19-22, Vienna, Austria
- Fabrizio Riguzzi, Elena Bellodi, Evelina Lamma, and Riccardo Zese. Learning the parameters of probabilistic description logics. In Gerson Zaverucha, Vitor Santos Costa, and Aline Marins Paes, editors, Late Breaking papers of the 23rd International Conference on Inductive Logic





Programming, Rio de Janeiro, Brazil, August 28th to 30th, 2013, volume 1187 of CEUR Workshop Proceedings, pages 46-51, Aachen, Germany, 2014. © by the authors, Sun SITE Central Europe.

- Fabrizio Riguzzi, Elena Bellodi, Evelina Lamma, and Riccardo Zese. Computing instantiated explanations in OWL DL. In Matteo Baldoni, Cristina Baroglio, and Guido Boella, editors, Proceedings of the 13th Conference of the Italian Association for Artificial Intelligence (Al\*IA2013), Turin, Italy, 4-6 December 2013, volume 8249 of Lecture Notes in Artificial Intelligence, pages 397-408, Heidelberg, Germany, 2013. © Springer, Springer. The original publication is available at <a href="http://www.springerlink.com">http://www.springerlink.com</a>.
- Riccardo Zese, Elena Bellodi, Evelina Lamma, and Fabrizio Riguzzi. A description logics tableau reasoner in Prolog. In Domenico Cantone and Marianna Nicolosi Asmundo, editors, Proceedings of the 28th Italian Conference on Computational Logic (CILC2013), Catania, Italy, 25-27 September 2013, number 1068 in CEUR Workshop Proceedings, pages 33-47, Aachen, Germany, 2013. © by the authors, Sun SITE Central Europe.
- Fabrizio Riguzzi, Evelina Lamma, Elena Bellodi, and Riccardo Zese. BUNDLE: A reasoner for probabilistic ontologies. In Wolfgang Faber and Domenico Lembo, editors, 7th International Conference on Web Reasoning and Rule Systems (RR 2013), Mannheim, Germany, July 27-29 2013. Proceedings, volume 7994 of Lecture Notes in Computer Science, pages 183-197, Heidelberg, Germany, 2013. © Springer, Springer. The original publication is available at <a href="http://www.springerlink.com">http://www.springerlink.com</a>.
- Fabrizio Riguzzi, Elena Bellodi, Evelina Lamma, and Riccardo Zese. Parameter learning for probabilistic ontologies. In Wolfgang Faber and Domenico Lembo, editors, 7th International Conference on Web Reasoning and Rule Systems (RR 2013), Mannheim, Germany, July 27-29 2013. Proceedings, volume 7994 of Lecture Notes in Computer Science, pages 265-270, Heidelberg, Germany, 2013. © Springer, Springer. The original publication is available at <a href="http://www.springerlink.com">http://www.springerlink.com</a>.
- Fabrizio Riguzzi, Elena Bellodi, Evelina Lamma, and Riccardo Zese. Epistemic and statistical probabilistic ontologies. In Fernando Bobillo, Rommel Carvalho, Paulo C. G. da Costa, Nicola Fanizzi, Kathryn B. Laskey, Kenneth J. Laskey, Thomas Lukasiewicz, Trevor Martin, Matthias Nickles, and Michael Pool, editors, Proceedings of the 8th International Workshop on Uncertain Reasoning for the Semantic Web (URSW2012), Boston, USA, 11 November 2012, number 900 in CEUR Workshop Proceedings, pages 3-14, Aachen, Germany, 2012. Sun SITE Central Europe.
- Fabrizio Riguzzi, Evelina Lamma, Elena Bellodi, and Riccardo Zese. Semantics and inference for probabilistic ontologies. In Matteo Baldoni, Federico Chesani, Bernardo Magnini, Paola Mello, and Marco Montai, editors, Popularize Artificial Intelligence. Proceedings of the Al\*IA Workshop and Prize for Celebrating 100th Anniversary of Alan Turing's Birth (PAI 2012), Rome, Italy, June 15, 2012, volume 860 of CEUR Workshop Proceedings, pages 41-46, Aachen, Germany, 2012. © by the authors, Sun SITE Central Europe.

**Thesis** 

Bachelor Degree in Information Engineering: "Design and Development of a Web Application for the Analysis and Control of VoIP Traffic". Supervisor: Stefanelli Cesare.

Master of Science in Computer and Automation Engineering: "Probabilistic Reasoning on Ontologies". Supervisor: Riguzzi Fabrizio, Lamma Evelina.

Honours and awards

Winner of "Premio per tesi di innovazione tecnologica in ambito open source AA 2012/2013" organized by the University of Ferrara and financed by Consorzio Ferrara Ricerche for the thesis "Probabilistic Reasoning on Ontologies".

Winner of "**RR2013 Best Paper Award**" for the paper Riguzzi F., Bellodi E., Lamma E., Zese R.: "BUNDLE: A Reasoner for Probabilistic Ontologies". In: RR 2013. LNCS, vol. 7994, pp. 183-197. Springer (2013).

Ranked **first** for the teaching of Computer Science in the assessment of the teaching of the Bachelor's degree course of Electronic and Computer Engineering of the University of Ferrara.

Il sottoscritto acconsente, ai sensi del D.Lgs. 30/06/2003 n.196, al trattamento dei propri dati personali. Il sottoscritto acconsente alla pubblicazione del presente curriculum vitae sul sito dell'Università di Ferrara

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