

# University Academic Curriculum Vitae

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**Personal information** Name: Francesco Corcoglioniti  
Nationality: Italian  
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**Education since leaving school**

2003: BSc in Computer Engineering @ Politecnico Milano  
Thesis: "Analysis and FPGA implementation of the MD5 cryptographic algorithm". Supervisor: Prof. A. Antola. Mark 110L/110.

2006: MSc in Computing Systems Engineering @ Politecnico Milano  
Thesis: "A platform for context-aware web applications". Supervisor: Prof. B. Pernici. Mark 110L/110.

2006: Qualification for practicing the engineering profession ("Esame di Stato Ingegnere dell'Informazione) @ Politecnico Milano

2016: PhD in Information and Communication Technologies @ University of Trento (funded by Fondazione Bruno Kessler)  
Thesis: "Frame-based Ontology Population from Text: Models, Systems, and Applications". Supervisors: Prof. M. Rospocher, Dr. L. Serafini. Reviewers: Prof. P. Cimiano, P. T. J. M. Vossen, P. Bouquet.  
Areas: Semantic Web, Natural Language Processing.

**Present appointment** 2020 - now: Research Assistant @ Free University of Bozen-Bolzano (supervisor: Prof. Diego Calvanese)

## Professional experience

From / to	Job title	Name of academic Institution	Academic level	Responsibilities
2020/04 -	-	Free University of Bozen-Bolzano	Research assistant	I contribute to the research and development of the Ontology-Based Data Access (OBDA) paradigm, focusing on its extension to non-relational sources including Web APIs (GraphQL) and semi-structured / unstructured data. I contribute to the IDEE project (EU FESR 1133).
2016/06 - 2019/07	-	Fondazione Bruno Kessler (Future Media unit)	Post-doc	I contributed to the unit's innovation activities aimed at combining Machine Learning, KR and NLP for user profiling, analysis, and automation of human activities on social media. I contributed to EIT projects Street Smart Retail and CREEP, and I co-supervised students (MSc/BSc/PhD) carrying out research on using Semantic Web techniques in social media.
2010/11 - 2016/04	-	University of Trento (within FBK)	PhD student	Beyond carrying out my PhD activities, I was involved and contributed to the research projects LiveMemories and NewsReader
2009/06 - 2010/10	-	Politecnico di Milano (DB group)	Research assistant	I contributed to research, tutoring and development activities related to the ERC Search Computing (SECO) project targeting the composition of ranked, domain-specific search services to answer Web queries

2006/04 - 2009/06	-	CEFRIEL	-	I was involved in consultancy, research, and teaching (executive courses, student tutoring) activities focusing on Semantic Web, trust, reputation. I helped building the company's intranet and a web contact management tool serving ~150 users. I contributed to the research projects COCOON, NEP4B, TripCom and Service-Finder
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### Participation in exhibitions

2015: Best system award (Task 3 – Frame entities identification) @ Semantic Web Evaluation of European Semantic Web Conf (ESWC)

2012: Best system award (cross-document coreference resolution task) @ 3<sup>rd</sup> Evaluation of NLP and Speech Tools for Italian (EVALITA)

*(disclaimer: significance limited as there were no other contestants)*

### Experience in academic teaching

1 PhD student, 1 post-MSc student, 2 MSc students, and 3 BSc students supervised in the last five years, areas Semantic Web, Natural Language Processing, Social Media.

Previously (2007-2012): limited experience as laboratory assistant (4 course editions; C language, DB and Web technologies) and student co-supervisor (1 post-MSc student, 2 MSc students) @ Politecnico di Milano and University of Trento.

### Memberships

#### Journal Reviewing

- Semantic Web Journal (SWJ): 2017, 2019 (2)
- Journal of Web Semantics (JWS): 2017, 2018, 2019, 2020
- Progress in Artificial Intelligence (PRAI): 2018
- Information Processing and Management (IPM): 2019
- Information Sciences (INS): 2018, 2019
- Information Journal: 2018 (2)
- Journal of Cooperative Information Systems (JCIS): 2018
- Journal of the Association for Information Science and Technology (JASIST): 2019
- PeerJ Computer Science: 2020

#### Conference Technical Program Committees

- AAAI Conf. on Artificial Intelligence (AAAI): 2020 – 2021
- Int. Conf. on Information and Knowledge Management (CIKM): 2020 (applied research track)
- Int. World Wide Web Conf. (WWW) / Web Conference (WebConf): 2016 (posters track)
- Int. World Wide Web Conf. (WWW / WebConf): 2016 (posters track)
- Int. Semantic Web Conf. (ISWC): 2014 - 2015, 2017 – 2020 (research track 2019; resource track 2017 - 2020; posters & demos track 2014 - 2015)
- Extended Semantic Web Conf. (ESWC): 2018 – 2021 (in-use track 2019 - 2020; resource track 2018; research track 2021)
- Knowledge Engineering and Knowledge Management (EKAW): 2018 (research track)
- ACM Symposium on Applied Computing (SAC): 2017 – 2021 (cognitive computing track 2017 - 2018; knowledge & language proc. track 2019 - 2021)
- Annual Meeting of Association for Comp. Linguistics (ACL): 2019 – 2021 (machine learning track 2019; resource track 2019; textual inference track 2020)
- Empirical Methods in Natural Language Processing (EMNLP): 2019 – 2021 (textual inference track 2020; information extraction track 2021)

## Research and scholarships

- Int. Conf. on Computational Linguistics (COLING): 2020 (semantics track)
- Language Resources and Evaluation Conf. (LREC): 2016, 2018, 2020
- Conf. on Language, Data and Knowledge (LDK): 2019
- Int. Conf. of Italian Association for Artificial Intelligence (AIIA): 2018 – 2019 (research track 2018 - 2019; doctoral consortium + student mentoring 2018)
- Int. Conf. on Advances in Semantic Processing (SEMAPRO): 2016 - 2019
- Int. Conf. on Social Media Tech., Comm., and Informatics (SOTICS): 2016 - 2019

### Workshop Technical Program Committees

- OWL Experiences and Directions Workshop (OWLED): 2016
- Language, Ontology, Terminology and Knowl. Structures (LOTKS) Workshop @ IWCS: 2017
- Int. Workshop on Art. Intel. for Business Process Manag. (AI4BPM) @ BPM: 2020 - 2021

### Overview

My research experience and interests can be broadly placed in the area of Artificial Intelligence and specifically Semantic Web, with particular focus on combining Knowledge Representation and Reasoning, Machine Learning, and Natural Language Processing techniques with applications in Knowledge Extraction from natural language text and Social Media.

### Summary of research in past 5 years

The main focus of my research has originally been the extraction of frame-based knowledge from natural language text, by applying Semantic Web and Knowledge Representation and Reasoning methods to process, reinterpret, and 'distill' RDF/OWL-encoded knowledge out of the NLP annotations coming from pipelines of off-the-shelf NLP tools (a common scenario, also investigated within the LiveMemories and NewsReader projects I was Involved in).

The main outcome of this research has been a 2-phase frame-based knowledge extraction method and its implementation (PIKES, see IEEE TKDE 2016 paper). Secondary results, instrumental to the main research goal, have been:

- the design of auxiliary ontologies (KEM, PreMOn, see LRE 2019 paper);
- the design and implementation of a system (KnowledgeStore, see IJSWIS 2015 paper) for storing – at large scale - the inputs (text, NLP annotations) and outputs (RDF/OWL data) of knowledge extraction systems;
- the design and implementation of an extensible, pipes & filters tool (RDFpro, see SAC 2015 paper) for parallel, non-distributed (i.e., local) large scale RDF processing, where processed data is kept in secondary memory (i.e., disk) leveraging streaming and sorting techniques;
- the application of the devised knowledge extraction system and related tools to improve document-retrieval (KE4IR, see SWJ 2019 paper), through an extension of the vector space model using 'semantic' terms resulting from knowledge extraction.

More recently, the focus has shifted to improving the quality of extracted knowledge. To that respect, a first investigated direction has been the use of background ontological knowledge to improve the coherence of the entity-based NLP annotations (e.g., Entity Linking, NERC) used in input to knowledge extraction, by means of a simple probabilistic model where annotation probabilities conditioned to ontological classes (learned from ground truth annotated corpora) are exploited to pick the best joint annotation combination (JPARK, see IJCAI 2018 and JWS 2020 papers). The general idea behind this work – i.e., leveraging background knowledge to support NLP tasks – has been investigated before in the context of co-reference resolution (EVALITA 2012 system and paper) and NERC+Entity Linking on microposts (EVALITA 2016 system and paper).

A second stream of research, instrumental to my 2016-2019 post-doc position and assignments, has regarded the use of Semantic Web techniques, in combination with NLP and Machine Learning methods, to support social media applications such as user profiling and social media automation. A first direction, pursued by a PhD student (Y. Nechaev) I co-supervised, has been the establishment of a link between Linked Data resources (DBpedia, Wikidata) and Social Media (Twitter), so to enable the flow of information between the two and the use of one type of data to support the processing of the other (SocialLink, see PRAI 2018 paper). A second direction, supported by the results of the aforementioned linking effort, has

regarded the learning of user models based on observed user behavior on the social media (e.g., past actions on Twitter) with the goal of recommending new actions that the user may like or that can be predicted to be effective on the social media (Pokedem, see AI\*IA 2018 paper).

### Summary of current research

I'm currently involved as research assistant in the IDEE (Integrazione Dati per l'Efficientamento Energetico) project and related research activities focusing on virtual knowledge graphs and their use for integrating and accessing to heterogeneous data through ontologies. In particular, contribute to the research and development of the Ontology-Based Data Access (OBDA) paradigm, focusing on its extension to non-relational sources including Web APIs (GraphQL) and semi-structured / unstructured data.

## Publications

DBLP: <https://dblp.org/pers/hd/c/Corcoglioniti:Francesco>

Scholar: <https://scholar.google.it/citations?user=Nw7gPMEAAAAJ>

Publications over the last 15 years in chronological order (oldest to newest); main author's name in *Italics* (equal contribution otherwise).

### Chapters in books

- D. Braga, S. Ceri, F. Corcoglioniti, and M. Grossniklaus, "Panta Rhei: Flexible execution engine for Search Computing queries," in *Search Computing: Challenges and Directions*, Springer, 2010, pp. 225–243. doi: 10.1007/978-3-642-12310-8\_12
- A. Bozzon, M. Brambilla, S. Ceri, F. Corcoglioniti, and N. Gatti, "Building Search Computing Applications," in *Search Computing: Challenges and Directions*, Springer, 2010, pp. 268–290. doi: 10.1007/978-3-642-12310-8\_14
- *D. Braga*, M. Grossniklaus, F. Corcoglioniti, and S. Vadacca, "Efficient Computation of Search Computing Queries," in *Search Computing: Trends and Developments*, Springer, 2011, pp. 141–155. doi: 10.1007/978-3-642-19668-3\_14
- R. Cattoni, F. Corcoglioniti, C. Girardi, B. Magnini, L. Serafini, and R. Zanolì, "Anchoring background knowledge to rich multimedia contexts in the KnowledgeStore," in *New Trends of Research in Ontologies and Lexical Resources*, Springer, 2013, pp. 91–112. doi: 10.1007/978-3-642-31782-8\_6
- *F. Corcoglioniti*, M. Rospocher, R. Cattoni, B. Magnini, and L. Serafini, "Managing large volumes of interlinked text and knowledge with the KnowledgeStore," in *Innovations, Developments, and Applications of Semantic Web and Information Systems*, IGI Global, 2018, pp. 32–61. doi: 10.4018/978-1-5225-5042-6.ch002

### Conference papers

- M. A. Brovelli, D. Magni, M. Brioschi, M. Legnani, and F. Corcoglioniti, "NAMGIS: A context-aware mobile Web GIS," in *Free and Open Source Software for Geospatial Conf. (FOSS4G)*, 2008
- *W. Corno*, F. Corcoglioniti, I. Celino, and E. Della Valle, "Exposing heterogeneous data sources as SPARQL endpoints through an object-oriented abstraction," in *3rd Asian Semantic Web Conf. (ASWC)*, Springer, 2008, pp. 434–448. doi: 10.1007/978-3-540-89704-0\_30
- *I. Celino*, D. Cerizza, F. Corcoglioniti, A. Guarino, A. Turati, and E. Della Valle, "STAR:chart - preserving data semantics in Web-based applications," in *12th Int. Conf. on Business Information Systems (BIS)*, Springer, 2009, pp. 97–108. doi: 10.1007/978-3-642-01190-0\_9
- *D. Cerri* and F. Corcoglioniti, "Bridging the gap between user attributes and service policies with attribute mapping," in *11th IEEE Conf. on Commerce and Enterprise Computing (CEC)*, IEEE, 2009, pp. 154–161
- S. Ceri, A. Abid, M. Abu Helou, A. Bozzon, D. Braga, M. Brambilla, A. Campi, F. Corcoglioniti, E. Della Valle, D. Eynard, P. Fraternali, M. Grossniklaus, D. Martinenghi, S. Ronchi, M. Tagliasacchi, and S. Vadacca, "Search Computing Systems (extended abstract)," in *SEBD, Esculapio*, 2010, pp. 446–453
- A. Bozzon, M. Brambilla, F. Corcoglioniti, and S. Vadacca, "A service-based architecture for

- multi-domain search on the Web,” in 8th Int. Conf. on Service-Oriented Computing (ICSOC), (short paper), Springer, 2010, pp. 663–669. doi: 10.1007/978-3-642-17358-5\_53
- S. Ceri, D. Braga, F. Corcoglioniti, M. Grossniklaus, and S. Vadacca, “Search Computing challenges and directions,” in 3rd Int. Conf. on Objects and Databases (ICOODB), Springer, 2010, pp. 1–5. doi: 10.1007/978-3-642-12310-8
  - I. Celino and F. Corcoglioniti, “Towards the formalization of interaction semantics,” in 6th Int. Conf. on Semantic Systems (I-SEMANTICS), ACM, 2010. doi: 10.1145/1839707.1839719
  - R. Cattoni, F. Corcoglioniti, C. Girardi, B. Magnini, L. Serafini, and R. Zanolì, “The Knowledge-Store: An entity-based storage system,” in 8th Int. Conf. on Language Resources and Evaluation (LREC), ELRA, 2012
  - F. Corcoglioniti, M. Rospocher, R. Cattoni, B. Magnini, and L. Serafini, “Interlinking unstructured and structured knowledge in an integrated framework,” in 7th IEEE Int. Conf. on Semantic Computing (ICSC), IEEE, 2013, pp. 40–47. doi: 10.1109/ICSC.2013.17
  - C. Di Francescomarino, F. Corcoglioniti, M. Dragoni, P. Bertoli, R. Tiella, C. Ghidini, M. Nori, and M. Pistore, “Semantic-based process analysis,” in 13th Int. Semantic Web Conf (ISWC), (in-use), Springer, 2014, pp. 228–243. doi: 10.1007/978-3-319-11915-1\_15
  - F. Corcoglioniti, M. Rospocher, M. Mostarda, and M. Amadori, “Processing billions of RDF triples on a single machine using streaming and sorting,” in 30th ACM Symposium on Applied Computing (SAC), ACM, 2015, pp. 368–375. doi: 10.1145/2695664.2695720
  - F. Corcoglioniti, M. Rospocher, and A. Palmero Aprosio, “A 2-phase Frame-based Knowledge Extraction framework,” in 31st ACM Symposium on Applied Computing (SAC), ACM, 2016, pp. 354–361. doi: 10.1145/2851613.2851845
  - F. Corcoglioniti, M. Rospocher, A. Palmero Aprosio, and S. Tonelli, “PreMOn: A Lemon extension for exposing predicate models as Linked Data,” in 10th Int. Conf. on Language Resources and Evaluation (LREC), ELRA, 2016
  - F. Corcoglioniti, M. Dragoni, M. Rospocher, and A. Palmero Aprosio, “Knowledge Extraction for Information Retrieval,” in 13th European Semantic Web Conf. (ESWC), 2016, pp. 317–333. doi: 10.1007/978-3-319-34129-3\_20
  - Y. Nechaev, F. Corcoglioniti, and C. Giuliano, “Linking knowledge bases to social media profiles,” in 32nd ACM Symposium on Applied Computing (SAC), ACM, 2017, 145–150. doi: 10.1145/3019612.3019645
  - Y. Nechaev, F. Corcoglioniti, and C. Giuliano, “SocialLink: Linking DBpedia entities to corresponding Twitter accounts,” in 16th Int. Semantic Web Conf. (ISWC), Springer, 2017, pp. 165–174. doi: 10.1007/978-3-319-68204-4\_17
  - F. Corcoglioniti, Y. Nechaev, C. Giuliano, and R. Zanolì, “Twitter user recommendation for gaining followers,” in 17th Int. Conf. of the Italian Association for Artificial Intelligence (AI\*IA), Springer, 2018, pp. 539–552. doi: 10.1007/978-3-030-03840-3\_40
  - Y. Nechaev, F. Corcoglioniti, and C. Giuliano, “Type prediction combining Linked Open Data and Social Media,” in 27th Int. Conf. on Information and Knowledge Management (CIKM), ACM, 2018, pp. 1033–1042. doi: 10.1145/3269206.3271781
  - M. Rospocher and F. Corcoglioniti, “Joint posterior revision of NLP annotations via ontological knowledge,” in 27th Int. Joint Conf. on Artificial Intelligence (IJCAI), 2018, pp. 4316–4322. doi: 10.24963/ijcai.2018/600

#### Journal articles in refereed academic journals

- M. A. Brovelli, D. Magni, M. Brioschi, M. Legnani, and F. Corcoglioniti, “The context-aware mobile GIS NAMGIS,” *South African Computer Journal (SACJ)*, no. 43, pp. 25–34, 2009
- S. Ceri, A. Abid, M. Abu Helou, D. Barbieri, A. Bozzon, D. Braga, M. Brambilla, A. Campi, F. Corcoglioniti, E. Della Valle, D. Eynard, P. Fraternali, M. Grossniklaus, D. Martinenghi, S. Ronchi, M. Tagliasacchi, and S. Vadacca, “Search Computing: Managing complex search queries,” *IEEE Internet Computing*, vol. 14, no. 6, pp. 14–22, 2010. doi: 10.1109/MIC.2010.106
- O. Popescu, F. Corcoglioniti, and R. Zanolì, “Person number estimation in large corpora,” *Intelligenza Artificiale*, vol. 6, no. 2, pp. 135–148, 2012. doi: 10.3233/IA-120036
- F. Corcoglioniti, M. Rospocher, R. Cattoni, B. Magnini, and L. Serafini, “The KnowledgeStore: A storage framework for interlinking unstructured and structured

knowledge," *Int. J. Semantic Web Inf. Syst.*, vol. 11, no. 2, pp. 1–35, 2015. doi: 10.4018/IJSWIS.2015040101

- *F. Corcoglioniti*, M. Rospoche, and A. Palmero Aprosio, "Frame-based ontology population with PIKES," *IEEE Trans. Knowl. Data Eng.*, vol. 28, no. 12, pp. 3261–3275, 2016. doi: 10.1109/TKDE.2016.2602206
- *Y. Nechaev*, *F. Corcoglioniti*, and *C. Giuliano*, "SocialLink: Exploiting graph embeddings to link DBpedia entities to Twitter profiles," *Progress in Artificial Intelligence*, vol. 7, no. 4, pp. 251–272, 2018. doi: 10.1007/s13748-018-0160-x
- *M. Rospoche*, *F. Corcoglioniti*, and *A. Palmero Aprosio*, "PreMON: LODifying linguistic predicate models," *Language Resources and Evaluation*, 2019. doi: 10.1007/s10579-018-9437-8
- *M. Rospoche*, *F. Corcoglioniti*, and *M. Dragoni*, "Boosting document retrieval with knowledge extraction and Linked Data," *Semantic Web*, vol. 10, no. 4, pp. 753–778, 2019. doi: 10.3233/SW-180325
- *M. Rospoche* and *F. Corcoglioniti*, "Knowledge-driven joint posterior revision of named entity classification and linking," *J. Web Semant.*, vol. 65, doi: 10.1016/j.websem.2020.100617

### Other publications

- *I. Celino*, *F. Corcoglioniti*, and *E. Della Valle*, "A semantic navigation framework for automatic presentation of ExpertFinder information," in *ExpertFinder Workshop*, 2007
- *I. Celino*, *F. Corcoglioniti*, and *E. Della Valle*, "Towards a Semantic Contact Management," in *Finding Experts on the Web with Semantics (FEWS) Workshop co-located with 6th Int. Semantic Web Conf. (ISWC)*, CEUR-WS.org, 2007, pp. 64–77
- *W. Corno*, *F. Corcoglioniti*, *I. Celino*, and *E. D. Valle*, "Optimizing SPARQL querying over pre-existing non-RDF data sources via an object-oriented approach," in *Scalable Semantic Web Knowledge Base Systems (SSWS) Workshop co-located with 7th Int. Semantic Web Conf. (ISWC)*, 2008
- *M. A. Brovelli*, *D. Magni*, *M. Brioschi*, *F. Corcoglioniti*, and *M. Legnani*, "NAMGIS: Un mobile GIS sensibile al contesto archeologico di utilizzo," in *Bollettino SIFET*, 2, (In Italian), Soc. Italiana di Fotogrammetria e Topografia, 2009, pp. 27–36
- *A. Bozzon*, *M. Brambilla*, *A. Campi*, *S. Ceri*, *F. Corcoglioniti*, *P. Fraternali*, and *S. Vadacca*, "Modeling Search Computing Applications," in *Model Driven Web Engineering (MDWE) Workshop collocated with 10th Int. Conf. on Current Trends in Web Engineering (ICWE)*, Springer, 2010, pp. 61–72. doi: 10.1007/978-3-642-16985-4\_6
- *R. Zanolì*, *F. Corcoglioniti*, and *C. Girardi*, "Dynamic threshold for clustering person names," in *Working Notes of EVALITA 2011*, 2011
- *R. Zanolì*, *F. Corcoglioniti*, and *C. Girardi*, "Exploiting background knowledge for clustering person names," in *Evaluation of Natural Language and Speech Tools for Italian (EVALITA)*, (best system award as only system participating to cross-document coreference task), Springer, 2012, pp. 135–145. doi: 10.1007/978-3-642-35828-9\_15
- *R. Cattoni*, *F. Corcoglioniti*, *C. Girardi*, *B. Magnini*, *L. Serafini*, and *R. Zanolì*, "TrentinoMedia: Exploiting NLP and background knowledge to browse a large multimedia news store," in *Popularize Artificial Intelligence (PAI) Workshop co-located with 12th Int. Conf. of the Italian Association for Artificial Intelligence (AI\*IA)*, (best paper award), 2012, pp. 21–25
- *F. Corcoglioniti*, *M. Rospoche*, *M. Amadori*, and *M. Mostarda*, "RDFpro: an extensible tool for building stream-oriented RDF processing pipelines," in *Developers Workshop collocated with 13th Int. Semantic Web Conf. (ISWC)*, CEUR-WS.org, 2014, pp. 49–54
- *Palmero Aprosio*, *F. Corcoglioniti*, *M. Dragoni*, and *M. Rospoche*, "Supervised opinion frames detection with RAID," in *2nd Semantic Web Evaluation Challenges (SemWebEval) co-located with 12th European Semantic Web Conf (ESWC)*, (Semantic Sentiment Analysis Award - Task 3, as only system participating to the task), Springer, 2015, pp. 251–263. doi: 10.1007/978-3-319-25518-7\_22
- *F. Corcoglioniti*, "Frame-based Ontology Population from Text: Models, Systems, and Applications," PhD thesis, University of Trento, 2016
- *F. Corcoglioniti*, *A. Palmero Aprosio*, *Y. Nechaev*, and *C. Giuliano*, "MicroNeel: Combining NLP Tools to Perform Named Entity Detection and Linking on Microposts," in *Evaluation of Natural Language and Speech Tools for Italian (EVALITA)*, 2016

- Y. Nechaev, F. Corcoglioniti, and C. Giuliano, "Concealing interests of passive users in social media," in Re-coding Black Mirror Workshop co-located with 16th Int. Semantic Web Conf (ISWC), vol. 1939, CEUR-WS.org, 2017

### Exhibitions

- D. Braga, F. Corcoglioniti, M. Grossniklaus, and S. Vadacca, "Panta Rhei: Optimized and ranked data processing over heterogeneous sources," in 8th Int. Conf. on Service-Oriented Computing (ICSOC) – Demonstrations, Springer, 2010, pp. 715–716. doi: 10.1007/978-3-642-17358-5\_69
- A. Bozzon, D. Braga, M. Brambilla, S. Ceri, F. Corcoglioniti, P. Fraternali, and S. Vadacca, "Search Computing: Multi-domain search on ranked data," in ACM Int. Conf. on Management of Data (SIGMOD) – Demonstrations, ACM, 2011, pp. 1267–1270. doi: 10.1145/1989323.1989472
- M. Dragoni, P. Bertoli, C. D. Francescomarino, C. Ghidini, M. Nori, M. Pistore, R. Tiella, and F. Corcoglioniti, "Modeling and monitoring processes exploiting semantic reasoning," in 13th Int. Semantic Web Conf. (ISWC) – Posters and Demonstrations, CEUR-WS.org, 2014, pp. 121–124
- M. Rospocher, F. Corcoglioniti, R. Cattoni, B. Magnini, and L. Serafini, "Integrating unstructured and structured knowledge with the KnowledgeStore," in 19th Knowledge Engineering and Knowledge Management (EKAW) Conf. – Posters and Demonstrations, Springer, 2014, pp. 177–181. doi: 10.1007/978-3-319-17966-7\_26
- M. Rospocher, F. Corcoglioniti, R. Cattoni, B. Magnini, and L. Serafini, "Integrating NLP and SW with the KnowledgeStore," in 13th Int. Semantic Web Conf. (ISWC) – Posters and Demonstrations, CEUR-WS.org, 2014, pp. 69–72
- F. Corcoglioniti, A. Palmero Aprosio, and M. Rospocher, "Demonstrating the power of streaming and sorting for non-distributed RDF processing: RDFpro," in 14th Int. Semantic Web Conf. (ISWC) – Posters and Demonstrations, CEUR-WS.org, 2015
- F. Corcoglioniti, M. Rospocher, and A. Palmero Aprosio, "Extracting Knowledge from Text with PIKES," in 14th Int. Semantic Web Conf. (ISWC) – Posters and Demonstrations, CEUR-WS.org, 2015
- F. Corcoglioniti, C. Giuliano, Y. Nechaev, and R. Zanolini, "Pokedem: An automatic social media management application," in 11th ACM Conf. on Recommender Systems (RECSYS), ACM, 2017, pp. 358–359. doi: 10.1145/3109859.3109980

### **Further data**

#### Presentations during past 3 years

- Apr 5, 2017: Frame-based Ontology Population from text with PIKES – Invited talk at Ontology Summit tel.co. series
- Aug 28, 2017: Pokedem: An automatic social media management application – live demonstration at ACM Conf. on Recommender Systems (RECSYS 2017), Como, Italy
- Nov 22, 2018: "Twitter user recommendation for gaining followers" – paper presentation at Int. Conf. of the Italian Association for Artificial Intelligence (AI\*IA 2018), Trento, Italy  
(Previously 2007-2008: demonstrations and paper presentations at SAC, ISWC, and AI\*IA)

#### Participation to summer schools

- Aug 2007: ACM Summer School on Recommender Systems, held in Bolzano, Italy, organized by ACM SIGCHI and Free University of Bozen-Bolzano
- July 2017: Participation @ to Int. Summer School on Deep Learning. held in Bilbao, Spain, organized by University of Deusto and Rovira i Virgili University
- July 2012: Participation to Interdisciplinary Summer School on Ontological Analysis, held in Trento, Italy, organized by IAOA
- June 2009: Participation to PHAROS Summer School, held in Como, Italy, organized by the PHAROS project consortium (FP6-IST-045035) and about information retrieval and multimedia search technologies

### Attendance to online Courses

- Aug-Oct 2019: Deep Learning Specialization, by Prof. A. Ng, deeplearning.ai, on Coursera (5 courses: Neural Networks and Deep Learning, Improving Deep Neural Networks: Hyperparameter tuning, Regularization and Optimization, Structuring Machine Learning Projects, Convolutional Neural Networks, Sequence Models)
- May 2019: Basic Modeling for Discrete Optimization, by Prof. P. J. Stuckey, University of Melbourne, and Prof. J. Ho Man Le, University of Hong Kong, on Coursera
- Oct 2018 Neural Networks for Machine Learning, by Prof. G. Hinton, University of Toronto, on Coursera
- July 2017 Machine Learning, by Prof. A. Ng, Stanford University, on Coursera

### Computer Skills

- Java: 10+ years of work experience in J2SE and J2EE development, in the context of small to medium (10+ developers) software projects, working mainly in the development of server systems; knowledge of Maven, Spring, and Eclipse.
- Python: Experience limited to small programs and scripts for implementing research ideas
- .NET: 1 year of work experience in C#, implementing extensions of DotNetNuke CMS, a Pocket PC client using RFID and GPS, and a multi-touch table demonstrator
- C/C++: Experience limited to university projects in Linux using automake, autoconf and gcc (e.g., impl. of POP3 client and integration of SimIt-ARM simulator in a SystemC simulator)
- Web: Good knowledge of HTML and CSS; discrete knowledge of JavaScript and JQuery
- Semantic Web: good knowledge of RDF, OWL, SPARQL and related technologies and best practices (e.g., Linked Data)
- Database: Working knowledge of SQL, MySQL, PostgreSQL (relational model), Virtuoso (RDF model), Lucene and ElasticSearch (text indexing), Hadoop HDFS and HBase
- Misc: working knowledge of Latex, MS Office and LibreOffice suites, AutoCAD and similars (e.g., DraftSight), Matlab and similars (e.g., Octave, Scilab), Protège

### **Statement of interest**

Since my MSc graduation in 2006, most of my work has dealt with semantic technologies – both from a research and application points of view. As part of previous research activities, contribution to research projects, and students' supervision, I have acquired extensive knowledge on Semantic Web methods and techniques (e.g., data modeling and processing using RDF, RDFS, OWL 2, SPARQL). This knowledge has been exploited in my previous position to investigate extraction of structured knowledge from text (leveraging also Natural Language Processing and Machine Learning methods), and it is now central to my new research position at UNIBZ. I am committed to continue research within this broad semantic field, and to engage in related activities such as teaching, student supervision, and project contribution / acquisition.

### **Language competence**

Italian: Mother tongue

English: Independent user – listening B1, reading B2, spoken interaction B1, spoken production B1, writing: B2; TOEFL: 240/300 (Aug 2003)

March 9, 2021