

Dr. Davide Lanti

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Online References

Website: <https://www.inf.unibz.it/~dlanti/>
GitHub: <https://github.com/tirrolo>
Main Own GitHub Projects:

<https://github.com/ontop/npd-benchmark>
<https://github.com/ontop/vig>
<https://github.com/ontop/obda-mixer>

Main Collaborations in GitHub Projects:

<https://github.com/ontop>

Google Scholar: U91SlzEAAAAJ

Cited By: 1283

H-index: 15

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Elsevier SCOPUS ID: 55973501200

Present Appointment

I am an Assistant Professor (RTD-A) at the Free University of Bozen-Bolzano (Italy).

Research Interests

My main research interests are ranked in the following order: *Ontology-based Data Access (aka Virtual Knowledge Graphs)*, *Description Logics*, *Semantic Web*, *Database Theory* and *Knowledge Representation and Reasoning* in general.

Education since Leaving School

Dates	04/01/2014 - 12/02/2018
Attained Title	Ph.D. in Computer Science
Scientific Sector	ING-INF/05 (Information Processing Systems)
Thesis Title	Benchmarking and Optimization of Ontology-based Data Access Systems
Thesis Link	https://bia.unibz.it/handle/10863/6081
Subject Area	Semantic Web, Knowledge Representation Systems, Databases, Logic
Institution(s)	Free University of Bolzano/Bozen
Place(s)	Bozen-Bolzano (Italy)

Dates	01/03/2016 - 31/07/2016
Qualification	Visiting PhD student at The French Institute for Research in Computer Science and Automation (INRIA)
Argument	Ontology-based Data Access Optimization
Institution(s)	Inria-Saclay Île-de-France
Place(s)	Saclay-Paris (France)

Dates	1/10/2010 - 11/04/2013
Attained Title	Master's Degree in Computational Logic (Joint German and Italian Degree)
Class	LM-18 (Informatics)
Thesis Title	Sharing Information in Parallel Search with Search Space Partitioning
Final Mark	1.3/4.0 (German System), 107/110 (Italian System)
Subjects Covered	Propositional Logic First Order Logic Modal Logic Model Checking SAT Solving Foundations of Logic Programming, and Prolog Answer Sets Programming Term Rewriting Systems

Description Logics, and Fuzzy Description Logics
Information Integration
English
Institution(s) Technische Universität Dresden, Free University of Bozen-Bolzano
Place(s) Dresden (Germany), Bolzano (Italy)

Dates 01/10/2005 - 15/03/2010
Attained Title Bachelor's Degree in Computer Science
Final Mark 110/110 cum Laude
Thesis Title DALI Interpreter Re-engineering and Integration with the Semantic Web
Subjects Covered Foundations of Computer Science and Mathematics
Programming Languages and Computer Architectures
Mathematical Analysis
Probability Calculus

Institution(s) Università de L'Aquila
Place L'Aquila (Italy)

Summer Schools

Dates 20/09/2019 - 24/09/2019
Name Reasoning Web Summer School (RW)
Attended Lectures/Talks Provenance in Databases
Algorithms for Description Logics
Place(s) Bozen-Bolzano (Italy)

Dates 15/08/2016 - 26/08/2016
Name European Summer School in Logic, Language and Information (ESSLLI)
Attended Lectures/Talks Description Logics
Type Theory
Algebraic Specification and Verification
Logic Foundations of Databases
Probabilistic Interpretation
Ontology-mediated Query Answering
Place(s) Bozen-Bolzano (Italy)

Dates 31/08/2015 - 04/08/2015
Name Reasoning Web Summer School (RW) + RR Doctoral Consortium
Attended Lectures/Talks Fuzzy Description Logics
Modal Higher Order Logic
TPTP (Automated Theorem Proving Competitions)
Legal RuleML
Datalog+/-
Answer Set Programming
Given Talk(s) Benchmarking and Optimization of OBDA Systems
Poster(s) Benchmarking and Optimization of OBDA Systems
Place(s) Berlin (Germany)

Dates 26/01/2015 - 30/01/2015
Name International Winter School on Big Data (BigDat)
Attended Lectures/Talks Decision Trees for Big Data Analytics
Programming with Big Data
Data-stream Security
Search Engines
Online Social Networks
Kernel Models for Big Data
Place(s) Tarragona (Spain)

Dates 08/09/2014 - 13/09/2014
 Name Reasoning Web Summer School (RW)
 Attended Lectures/Talks Linked Data
 Description Logics
 Query-processing for RDF Databases
 Graph Databases
 Ontology-based Query Answering
 Temporal Ontology-based Data Access
 Probabilistic Databases
 Smart Cities
 Machine Learning on Graphs
 Poster(s) The NPD Benchmark for OBDA Systems
 Place(s) Athens (Greece)

Dates 27/07/2014 - 1/08/2014
 Name EATCS Young Researchers School—Automata, Logic and Games
 Attended Lectures/Talks Logic Foundations of Databases
 Place(s) Telč (Czech Republic)

Dates 29/01/2014 - 31/01/2014
 Name Foundations and Challenges of Change in Ontologies and Databases (FCCOD)
 Attended Lectures/Talks Talks regarding dynamic aspects of logic and data access (Temporal Logics)
 Given Talk(s) A Survey of Temporal Extensions of DLs
 Place(s) Bolzano-Bozen (Italy)

Dates 01/08/2011 - 12/08/2011
 Name European Summer School in Logic, Language and Information (ESSLLI)
 Attended Lectures/Talks Logic in Action
 Logics of knowledge and strategic abilities in multi-agent systems
 Ordinals and Cardinals
 Strategies in Game: A logic automata study
 Place(s) Ljubljana (Slovenia)

Professional Experience

Dates 01/08/2022 - ongoing
 Company Free University of Bozen-Bolzano
 Academic Level Assistant Professor (RTD A) with fixed-term contract (Faculty RTD)
 Scientific Sector ING-INF/05 (Information Processing Systems)
 Responsibilities Teaching duties (60h per academic year).
 Place(s) Bolzano-Bozen (Italy)

Dates 01/10/2020 - 30/07/2022
 Company Free University of Bozen-Bolzano
 Academic Level Assistant Professor (RTD A) with fixed-term contract
 Project European Union H2020 project “Intelligent Open Data Exploration” (H2020-863410 IN-ODE)
 Scientific Sector ING-INF/05 (Information Processing Systems)
 Responsibilities Foundational and applied research on the use of Virtual Knowledge Graphs for data management and integration of heterogenous data sources; Teaching duties (60h per academic year).
 Place(s) Bolzano-Bozen (Italy)

Dates	01/01/2018 - 30/09/2020
Company	Free University of Bozen-Bolzano
Academic Level	AR (Assistente alla Ricerca, Research Assistant)
Project	KENDO-Call+StyLoLA
Scientific Sector	ING-INF/05 (Information Processing Systems)
Responsibilities	Foundational and applied research within the framework of Virtual Knowledge Graphs, focusing on: benchmarking, optimization, explanation and aggregation.
Place(s)	Bolzano-Bozen (Italy)
Dates	01/10/2013 - 31/12/2013
Company	Free University of Bozen-Bolzano
Type of Collaboration	Fixed-term Contract (co.co.pro.)
Task Description	In <i>Ontology-based Data Access (OBDA)</i> , the aim is to access heterogeneous physical data sources through a unified conceptual layer provided by a mediating ontology. My work focused on the production of a survey on OBDA research and on the understanding of the weaknesses of implemented VKG systems.
Place(s)	Bolzano-Bozen (Italy)
Dates	01/11/2012 - 31/03/2013
Company	SAP A.G.
Type of Collaboration	Internship
Responsibilities	<i>Complex Event Processing (CEP)</i> describes search patterns inside a continuous stream of events. During this internship I designed, implemented and tested a software artifact able to flexibly migrate resource demanding portions of queries (such as <i>correlated aggregations</i>) over an existing CEP system (<i>Sybase Event Stream Processor</i>) to the SAP HANA database.
Place(s)	Dresden (Germany)
Dates	2005-2009 (Occasionally)
Company	Abruzzo Vetro - Ardagh Glass
Type of Collaboration	Fixed-term Contract
Responsibilities	Manual checking and discarding of defective glass bottles.
Place(s)	Montorio al Vomano (Italy)

Experience in Academic Teaching

Dates	A.Y. 2022 - 2023, Summer Semester
University	Free University of Bozen-Bolzano
Type of Collaboration	Lecturer
Course Name	Modeling and Databases – Introduction to Databases for Business Informatics (6 ECTS)
Academic Level	Bachelor Degree (1st year)
Scientific Sector	INF/01
Number of Hours	60 (40 of frontal lectures, 20 of labs)
Language	English
Place(s)	Bolzano-Bozen (Italy)
Dates	A.Y. 2022 - 2023, Winter Semester
University	Free University of Bozen-Bolzano
Type of Collaboration	Lecturer
Course Name	Intelligent Agents – Intelligent Agents Project (6 ECTS)
Academic Level	Bachelor Degree (3rd year)
Scientific Sector	INF/01
Number of Hours	60 (20 of frontal lectures, 40 of labs)
Language	English
Place(s)	Bolzano-Bozen (Italy)
Dates	A.Y. 2021 - 2022, Summer Semester

University	Free University of Bozen-Bolzano
Type of Collaboration	Teaching Assistant (tutor)
Course Name	Programming Project (9 ECTS)
Academic Level	Bachelor Degree
Scientific Sector	INF/01
Number of Hours	30 hours of labs
Task Description	I was responsible for the laboratories of this course
Language	English
Place(s)	Bolzano-Bozen (Italy)
Dates	A.Y. 2021 - 2022, Winter Semester
University	Free University of Bozen-Bolzano
Type of Collaboration	Teaching Assistant (tutor)
Course Name	Computer Programming (9 ECTS)
Academic Level	Bachelor Degree
Scientific Sector	INF/01
Number of Hours	30 hours of labs
Task Description	I was responsible for the laboratories of this course
Language	English
Place(s)	Bolzano-Bozen (Italy)
Dates	A.Y. 2020 - 2021, Winter Semester
University	Free University of Bozen-Bolzano
Type of Collaboration	Lecturer
Course Name	Semantic Technologies and Linked Data (6 ECTS)
Academic Level	Master's Degree
Scientific Sector	INF/01
Number of Hours	60 (40 of frontal lectures, 20 of labs)
Language	English
Place(s)	Bolzano-Bozen (Italy)
Dates	A.Y. 2019 - 2020, Winter Semester
University	Free University of Bozen-Bolzano
Type of Collaboration	Teaching Assistant (tutor)
Course Name	Introduction to Databases (6 ECTS)
Academic Level	Bachelor's Degree
Scientific Sector	ING-INF/05
Task Description	I was responsible for the management of the projects for this course. My activities ranged from tutoring of the students to projects' discussions.
Language	English
Place(s)	Bolzano-Bozen (Italy)
Dates	A.Y. 2019 - 2020, Winter Semester
University	Free University of Bozen-Bolzano
Type of Collaboration	Teaching Assistant (tutor)
Course Name	Programming Paradigms
Scientific Sector	INF/01
Academic Level	Bachelor's Degree
Task Description	I was co-responsible for the laboratories for this course. Exercises were on the following programming paradigms: Object-oriented (Ruby), Functional (Haskell), Logic (Prolog), and Concurrent (ERLANG)
Language	Italian
Place(s)	Bolzano-Bozen (Italy)
Dates	A.Y. 2018 - 2019, Winter Semester
University	Free University of Bozen-Bolzano

Type of Collaboration	Teaching Assistant (tutor)
Course Name	Introduction to Databases (6 ECTS)
Academic Level	Bachelor's Degree
Scientific Sector	ING-INF/05
Task Description	I was responsible for the laboratories and the projects for this course. My activities were: exercises on foundational and applied notions of relational databases, managing of the students' projects and projects' discussions
Language	English
Place(s)	Bolzano-Bozen (Italy)
Dates	A.Y. 2018 - 2019, Winter Semester
University	Free University of Bozen-Bolzano
Type of Collaboration	Teaching Assistant (tutor)
Course Name	Intelligent Systems
Academic Level	Bachelor's Degree
Scientific Sector	INF/01
Task Description	I was responsible for the laboratories for this course. I proposed exercises over: Search, Logic Programming, Knowledge Representation
Language	Italian
Place(s)	Bolzano-Bozen (Italy)
Dates	A.Y. 2017 - 2018, Summer Semester
University	Free University of Bozen-Bolzano
Type of Collaboration	Teaching Assistant (tutor)
Course Name	Knowledge Representation and Ontologies
Academic Level	Master's Degree
Scientific Sector	INF/01
Task Description	I was responsible for the laboratories and the project for this course. I proposed exercises and projects over: Semantic Web, Description Logics, Virtual Knowledge Graphs
Language	English
Place(s)	Bolzano-Bozen (Italy)
Dates	A.Y. 2017 - 2018, Winter Semester
University	Free University of Bozen-Bolzano
Type of Collaboration	Teaching Assistant (tutor)
Course Name	Intelligent Systems
Academic Level	Bachelor's Degree
Scientific Sector	INF/01
Task Description	I was responsible for the laboratories for this course. I proposed exercises over: Search, Logic Programming, Knowledge Representation
Language	Italian
Place(s)	Bolzano-Bozen (Italy)
Dates	A.Y. 2016 - 2017, Winter Semester
University	Free University of Bozen-Bolzano
Type of Collaboration	Teaching Assistant (tutor)
Course Name	Operating Systems
Academic Level	Bachelor's Degree
Scientific Sector	ING-INF/05
Task Description	I was responsible for the laboratories for this course. I proposed Bash and C exercises over core OS functionalities
Language	English
Place(s)	Bolzano-Bozen (Italy)

Organization of Scientific Events

2023	Chair of the RuleML+RR 2023 Doctoral Consortium
2019	Chair of the track on <i>KRR LKR - Logics for Knowledge Representation</i> for the 28th International Joint Conference on Artificial Intelligence (IJCAI 2019), Macao (China).

Committee Memberships

2022	PC member for the 19th International Conference on Principles of Knowledge Representation and Reasoning (KR 2022)
2022	PC member for the 31th International Joint Conference on Artificial Intelligence (IJCAI 2022)
2021	PC member for the 30th International Joint Conference on Artificial Intelligence (IJCAI 2021)
2020	PC member for the 29th International Joint Conference on Artificial Intelligence (IJCAI 2020)
2019	PC member for the European Conference on Artificial Intelligence (ECAI 2019)
2019	PC member for the 28th International Joint Conference on Artificial Intelligence (IJCAI 2019)

Third Mission

2022	Presentation for high-school students at the <i>Open Day for Schools</i> , organized by NOI Technology Park (18/11/2022)
2022	Meeting with the Loacker company, in the context of the <i>Touch and Feel</i> event organized by the Faculty of Computer Science of the Free University of Bozen-Bolzano (01/07/2022)

Talks

Dissemination

Dates	01/06/2022
Name	Second INODE EOSC Workshop
Topic(s)	Components and Services of the INODE System
Given Talk(s)	Knowledge Graphs for Data Access
Talk Video	https://eosc-portal.eu/events/2nd-inode-eosc-workshop
Place(s)	Virtual

Dates	21/05/2021
Name	INODE EOSC Workshop
Topic(s)	Components and Services of the INODE System
Given Talk(s)	Knowledge Graphs for Data Access
Talk Video	https://tinyurl.com/3dsawcmb
Place(s)	Virtual

Invited Talks

Dates	25/11/2022
Event	15th Seminar on Ontology Research in Brazil – ONTOBRAS 2022
Session Name	Designing Virtual Knowledge Graphs with Ontop and Ontopic Studio
Topic(s)	VKGs, Ontop, Ontopic

Typology Hands-on Tutorial on the VKG System Ontop (with Diego Calvanese and Benjamin Cogrel)
 URL <https://www.inf.ufrgs.br/ontobras/en/tutorials-2022/>
 Place(s) Virtual

Conference Presentations

Dates 19/06/2022 - 22/06/2022
 Name 30th Symposium on Advanced Database System (SEBD 2022)
 Topic(s) Databases
 Given Talk(s) Conceptually-grounded Mapping Patterns for Virtual Knowledge Graphs (Extended Abstract)
 Place(s) Tirrenia, Pisa (Italy)

Dates 28/06/2021 - 02/07/2021
 Name International Conference on Advanced Information Systems Engineering (CaiSE)
 Topic(s) Information Systems
 Given Talk(s) ADaMaP: Automatic Alignment of Relational Data Sources Using Mapping Patterns
 Place(s) Melbourne, Australia (Virtual due to Covid-19)

Dates 07/01/2021 - 15/01/2021
 Name International Joint Conference on Artificial Intelligence (IJCAI)
 Topic(s) Artificial Intelligence
 Given Talk(s) Counting Query Answers over a DL-Lite Knowledge Base
 Place(s) Yokohama, Japan (Virtual due to Covid-19)

Dates 10/08/2019 - 16/08/2019
 Name International Joint Conference on Artificial Intelligence (IJCAI)
 Topic(s) Artificial Intelligence
 Given Talk(s) Enriching Ontology-based Data Access with Provenance (with Prof. Ana Ozaki)
 Place(s) Macao (China)

Dates 21/10/2017 - 25/10/2017
 Name International Semantic Web Conference (ISWC)
 Topic(s) Semantic Web
 Given Talk(s) Cost-driven Ontology-based Data Access
 Talk Video http://videolectures.net/iswc2017_lanti_data_access/
 Place(s) Vienna (Austria)

Dates 06/07/2016 - 09/07/2016
 Name International Web Rule Symposium (RuleML)
 Topic(s) Rule Systems
 Ontology-based Data Access
 Legal Rules and Reasoning
 Given Talk(s) OBDA Constraints for Effective Query Answering
 Talk Video <https://www.youtube.com/watch?v=ivcRyy8a-Fw>
 Place(s) Stony-Brook, New York (USA)

Dates 04/08/2015 - 05/08/2015
 Name International Conference on Web Reasoning and Rule Systems (RR)
 Topic(s) Rule Systems
 Given Talk(s) (Doctoral Consortium): Benchmarking and Optimization of OBDA Systems
 Place(s) Berlin (Germany)

Dates 7/01/2013 - 11/01/2013

Name Learning and Intelligent Optimization Conference (LION)
 Topic(s) Combinatorial Optimization
 Large-scale Parallelization in Search
 Games and Computational Intelligence
 Given Talk(s) Information Sharing in Parallel SAT Solving
 Place(s) Catania (Italy)

Workshop Presentations

Dates 12/09/2020 - 14/09/2020
 Name International Workshop on Description Logics (DL)
 Topic(s) Description Logics
 Given Talk(s) A Scalable Benchmark for OBDA Systems: Preliminary Report
 Talk Video <https://tinyurl.com/y2ulwp15>
 Place(s) Rhodes, Greece (Virtual)

Dates 20/10/2014
 Name International Workshop on Scalable Semantic Web
 Topic(s) Semantic Web repositories etc.
 Given Talk(s) The NPD Benchmark for OBDA Systems
 Place(s) Riva del Garda (Italy)

Dates 17/07/2014 - 20/07/2014
 Name International Workshop on Description Logics (DL)
 Topic(s) Description Logics
 Place(s) Wien (Austria)

Dates 13/07/2014
 Name OWL Reasoner Evaluation Workshop (ORE)
 Topic(s) Knowledge Representation Systems
 OWL Benchmarks
 Given Talk(s) A Scalable Benchmark for OBDA Systems: Preliminary Report
 Place(s) Wien (Austria)

Dates 14/04/2014 - 17/04/2014
 Name EPCL PhD Workshop 2014
 Topic(s) Static and dynamic aspects of OBDA
 Argumentation theory
 SAT Solving
 Semantic Web
 Computer Science (Polynomial Hierarchy)
 Given Talk(s) Towards a Scalable Benchmark for OBDA Systems
 Place(s) Dresden (Germany)

Reviewing Activity

Event or Journal Semantic Web Journal
 Reviewed Papers 2
 Year 2022

Event or Journal Journal on Computing and Cultural Heritage
 Reviewed Papers 1
 Year 2022

Event or Journal	International Conference on Principles of Knowledge Representation and Reasoning (KR 2022)
Reviewed Papers	2
Year	2022
Event or Journal	International Joint Conference on Artificial Intelligence (IJCAI)
Reviewed Papers	5
Year	2022
Event or Journal	International Joint Conference on Artificial Intelligence (IJCAI)
Reviewed Papers	2
Year	2021
Event or Journal	Knowledge-Based Systems
Reviewed Papers	1
Year	2021
Event or Journal	Journal of Web Semantics
Reviewed Papers	1
Year	2020
Event or Journal	The 4th International Joint Conference on Rules and Reasoning (RuleML+RR 2020)
Reviewed Papers	1 (Sub-reviewer)
Year	2020
Event or Journal	International Joint Conference on Artificial Intelligence (IJCAI)
Reviewed Papers	2
Year	2020
Event or Journal	International Joint Conference on Artificial Intelligence (IJCAI)
Reviewed Papers	4
Year	2019
Event or Journal	Global Conference on Artificial Intelligence (GCAI)
Reviewed Papers	2 (Sub-reviewer)
Year	2019
Event or Journal	Journal of Web Semantics
Reviewed Papers	1
Year	2018
Event or Journal	The 12th IEEE International Conference on Semantic Computing (ICSC)
Reviewed Papers	4 (Sub-reviewer)
Year	2018
Event or Journal	The 16th International Semantic Web Conference (ISWC)
Reviewed Papers	1 (Sub-reviewer)
Year	2017

Research Projects

Principal Investigator Role

Project MP4OBDA: Mapping Patterns for Ontology-based Data Access
 PI Davide Lanti
 Call RTD2021, Faculty of Computer Science of the Free University of Bozen-Bolzano

Other Roles

List of projects in which I have participated through scientific contributions and/or writing of deliverables.

Role	Team member (WP leader)
Project	INODE: European Union H2020 Intelligent Open Data Exploration, grant n. 863410
Short Description	Development of a suite of agile, fit-for-purpose, and sustainable services for exploration of open data sets that allow users to interact with data in a dialectic and natural way.
Project Duration	2019 – 2023
Link	http://www.inode-project.eu/
Role	Proposal preparation
Project	High quality Open data Publishing and Enrichment (HOPE), grant by Miur (PRIN)
Project Duration	2019/09 – 2022/08
Short Description	Dealing with privacy-preserving management of open data, the project has set the basis for extending the VKG paradigm to data sources that are not relational (as openEO raster data), and specifically to NoSQL, temporal and geospatial data
Link	http://hope-prin.org/index.html
Role	Team Member
Project	StyLoLA: South Tyrol Longitudinal study on Longevity and Ageing
Short Description	The aim of this project is to describe health and healthcare trends in South Tyrol.
Project Duration	2018 – 2021
Role	Team member
Project	KENDO: Knowledge-driven Enterprise Distributed cOmputing
Short Description	It aims at developing a formal, verifiable and executable framework for enterprise distributed systems (EDSs) empowered with knowledge.
Project Duration	2015 – 2018
Role	Team member
Project	OBATS: Ontology-based analysis of temporal and streaming data
Short Description	OBATS aims at applying the approaches of Semantic Web in the context of temporal and streaming data of devices and sensors.
Project Duration	Jul. 2017 – Jun. 2019
Role	Team member
Project	Optique: European Union FP7 IST Large Scale Integrating Project Scalable End-user Access to Big Data (Optique), grant agreement n. FP7-318338.
Short Description	The main objective of Optique is to develop an extensible platform that provides a complete and generic solution to the data access challenges posed by Big Data.
Project Duration	Nov. 2012 – Oct. 2016
Link	http://optique-project.eu/

Other Academic Responsibilities

Dates A.Y. 2015/2016
University Free University of Bozen-Bolzano
Responsibility Faculty-level PhD Students' Representative
Boards PhD Committee
Students Council
Faculty Computer Science
Place(s) Bolzano-Bozen (Italy)

Dates A.Y. 2014/2015
University Free University of Bozen-Bolzano
Responsibility Faculty-level PhD Students' Representative
Boards PhD Committee
Students Council
Faculty Computer Science
Place(s) Bolzano-Bozen (Italy)

Language Skills

Native Italian Speaker

Excellent knowledge of the English language, both written and oral. Level C1.

Language Certificates

2021 English, Level C1. Released by the Language Center of the Free University of Bozen-Bolzano
2011 FCE certificate (B2 level, English), obtained in 2011
2010 Institutional paper based TOEFL (English). Released by the Wayne State University (Michigan) with a score of 580

Programming Skills

Known Programming Languages

Procedural and OO Excellent knowledge of Java 8. Good knowledge of C++ (03), C (99), and Python 3. Fair knowledge of Ruby.
Functional, Logic, Parallel Fair knowledge of Lisp, Haskell, OcaML, Prolog, ASP, and Erlang.
Web Fair knowledge of PHP.
SAT+SMT/Constraint Programming Good knowledge of Z3. Fair knowledge of ECLiPSe.
Script Excellent knowledge of Bash.

Experience in the Development of Software Tools and Prototypes

I have a solid experience in developing back-end software tools and prototypes:

- In my BSc thesis, I have autonomously designed and implemented an interface to the *Semantic Web* for DALI. DALI is a language for multi-agent systems whose interpreter is written in Prolog;
- During my internship at SAP, I designed, implemented (in Java) and tested a software artifact able to flexibly migrate resource demanding portions of queries (such as *correlated aggregations*) over an existing CEP system (*Sybase Event Stream Processor*) to the SAP HANA database;

- In my MSc thesis, I worked on the implementation of PCasso, a competitive parallel SAT solver based on MiniSAT and implemented in C++; The experimentations reported in articles [CI-7, WI-22, WI-21] rely on such tool.
 - During my PhD studies, I have autonomously designed and implemented a number of tools and prototypes in JAVA. Most notably, I have created the following tools:
 - <https://github.com/ontop/vig>: A *data-scaler* for OBDA benchmarks;
 - <https://github.com/ontop/obda-mixer>: A testing platform for OBDA benchmarks.
- Several scientific publications of mine, as well as a number of works from other researchers, rely on these two tools. According to Google Scholar, at the time of writing, the sum of citations to the works describing the tools [TR-35, WI-25, CI-13], and on the *NPD Benchmark* [CI-11, WI-24, WI-23] (a benchmark that has such tools at its core) is 78.
- Finally, I am one of the developers of the *popular* (in the sense that it is *massively* cited in scientific publications and it has over 300 stars on GitHub) VKG system `Ontop`:
 - <https://github.com/ontop>

Prizes

2018: Best PhD Student Award, Faculty of Computer Science, Free University of Bozen-Bolzano

2016: Semantic Web Journal Outstanding Paper Award 2016

2015: Best Doctoral Consortium Contribution Award in RR Conference 2015

Scholarships, Waivers, etc.

Date Granted	2017
Award Holder(s)	Davide Lanti
Funding Body	Semantic Web Science Association (SWSA) and the US National Science Foundation (NSF)
Title	Student Travel Award for participation at the International Semantic Web Conference
Amount Received	300 Eur.

Date Granted	2016
Award Holder(s)	Davide Lanti
Funding Body	Euregio
Title	Euregio Grant for participation at ESSLLI Summer School 2016
Amount Received	Fee Waiver, corresponding to 450 Eur.

Date Granted	2014-2016
Award Holder(s)	Davide Lanti
Funding Body	Free University of Bozen-Bolzano
Title	PhD bursary

Date Granted	2011
Award Holder(s)	Davide Lanti
Funding Body	Province of Bozen-Bolzano
Title	Bursary “per meriti particolari” (special merit)
Amount Received	1160 Eur.

Publications

In the following list, I indicate with the *italic font* the main author (whenever applicable).

Papers in Refereed International Journals

- [JI-1] M. Giese, A. Soylu, G. Vega-Gorgojo, A. Waaler, P. Haase, E. Jiménez-Ruiz, D. Lanti, M. Rezk, G. Xiao, Ö. L. Özçep, and R. Rosati. Optique: Zooming in on Big Data. *IEEE Computer*, 48(3):60–67, 2015. DOI: 10.1109/MC.2015.82.
- [JI-2] D. Calvanese, B. Cogrel, S. Komla-Ebri, R. Kontchakov, D. Lanti, M. Rezk, M. Rodriguez-Muro, and G. Xiao. Ontop: Answering SPARQL queries over relational databases. *Semantic Web Journal*, 8(3):471–487, 2017. DOI: 10.3233/SW-160217.
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