

PERSONAL INFORMATION

Andrea Mariello



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📅 Date of birth 29 Jan 1990 | 🇮🇹 Nationality Italian

EDUCATION AND TRAINING

Nov 2015–Present

Ph.D. in Information and Communication Technology

ICT International Doctoral School, University of Trento, Trento (Italy)

Curriculum: Computer Science

Research area: Machine Learning and Intelligent Optimization

Main research interests:

- feature selection
- robust optimization
- stochastic modelling
- simulation
- dynamic pricing
- simulation optimization

Sep 2016–Dec 2016

Visiting Ph.D. Student

IMDEA Networks Institute and Universidad Carlos III de Madrid, Leganés - Madrid (Spain)

Main research activity: comparison of feature selection techniques and machine learning models for salary prediction in the Spanish IT job market

Oct 2011–Oct 2013

M.Sc. in Computer Engineering cum laude

University of Salento, Lecce (Italy)

Thesis titled "Big Data Analytics for Climate Change", developed in collaboration with the High Performance Computing Laboratory, University of Salento and the Advanced Scientific Computing Division, CMCC.

Grade average: 29.8 / 30

Final mark: 110 / 110 cum laude

Oct 2008–Oct 2011

B.Sc. in Information Engineering cum laude

University of Salento, Lecce (Italy)

Course track: Computer Science

Thesis titled "Benchmark for relational DBMSs: state of the art and comparative analysis between MySQL and SQLite".

Grade average: 28.7 / 30

Final mark: 110 / 110 cum laude

Sep 2003–Jul 2008

Scientific Secondary School Diploma cum laude

I.I.S.S. "Q.Ennio", Gallipoli (Italy)

Grade average: 10 / 10 Final mark: 100 / 100 cum laude

WORK EXPERIENCE

Sep 2016–Sep 2018

Teaching Assistant

Dept. of Information Engineering and Computer Science, University of Trento (Italy)

Courses:

- Intelligent Optimization for Data Science a.y. 2017/18 (Master's level)
- Machine Learning for Data Science a.y. 2016/17, 2017/18 (Bachelor's level)

Nov 2013–Sep 2015

Computer Scientist / Data Engineer

Euro-Mediterranean Center on Climate Change - CMCC, Lecce (Italy)

Researcher of the Advanced Scientific Computing Division:

- Design, implementation and verification of the core modules of Ophidia, a Big Data Analytics Platform for eScience, including an advanced command-line interpreter and several Data Analytics and Mining parallel and distributed operators
- Design and implementation of data management platforms, online data archives and related data access and transformation services in different EU-funded projects

PERSONAL SKILLS

Mother tongue(s)

Italian

Other language(s)

	UNDERSTANDING		SPEAKING		WRITING
	Listening	Reading	Spoken interaction	Spoken production	
English	C1	C2	C1	C1	C2
TOEFL iBT score: 96/120 (May 2015)					
Spanish	A1	A2	A1	A1	A1
Vietnamese	A1	A1	A1	A1	A1

Levels: A1 and A2: Basic user - B1 and B2: Independent user - C1 and C2: Proficient user
Common European Framework of Reference for Languages

Communication skills

Good communication skills gained during my studies through experiences abroad and teamworking, and further strengthened by my work experience through several teleconferences, presentations and participation in international conferences.

Organisational / managerial skills

Leadership and good organisational skills gained through experience in teambuilding and teamworking during my studies and my work experience.

Job-related skills

Experience in:

- Data Analytics and Mining, Machine Learning, Business Intelligence, Decision Support Systems, Stochastic Modelling, Simulation and Optimization theory and tools (object of my PhD research)
- tutoring bachelor's and master's students (at CMCC and during my PhD)
- giving talks and organizing seminars (at CMCC and during my PhD)

Digital skills

SELF-ASSESSMENT

Information processing	Communication	Content creation	Safety	Problem solving
Proficient user	Proficient user	Proficient user	Proficient user	Proficient user

Digital skills - Self-assessment grid

- Good command of office suites and photo/video editing software
- System and network design and programming
- Advanced programming skills in **C/C++** (C++14) and **Python** (*NumPy, scikit-learn, pandas, matplotlib, Flask/Django, Jupyter*)
- Good command of **git, svn, GitHub, GitLab, Docker** and **LaTeX**
- Good programming skills in Java, HTML/CSS/Javascript, MPI, bash scripting, **Matlab**
- Database programming (*SQLite, MySQL, PostgreSQL, MongoDB*)
- Basic programming skills in *R* and *Apache Spark*

ADDITIONAL INFORMATION

Courses

- *Learning From Data (CS1156x)*, Caltech through edX, Sep-Dec, 2016 (**Teaching assistant**)
- *Advanced Statistics and Data Mining Summer School*, Universidad Politécnica de Madrid, Madrid, Spain, July 4-8, 2016
- *Machine Learning for Data Science and Analytics (DS102X)*, Columbia University through edX, Feb-Mar, 2016

Journals

- **A. Mariello**, R. Battiti, "*Feature Selection based on the Neighborhood Entropy*", to appear in IEEE Transactions on Neural Networks and Learning Systems, 2018

Seminars

- "*Feature selection for smarter data analysis*", IMDEA Networks Institute, Leganés (Madrid), Spain, December 12, 2016 (**Speaker**)
- *LIONlab Seminars*, University of Trento, Trento, Italy, March 7-April 27, 2016 (**Organizer**)
- "*Approximated Nearest Neighbors*", LIONlab Seminars, University of Trento, Trento, Italy, March 16, 2016 (**Speaker**)

Book Chapters

- R. Battiti, M. Brunato, **A. Mariello**, "*Reactive Search Optimization: Learning While Optimizing*", to appear in *Handbook of Metaheuristics (3rd ed.)*, International Series in Operations Research and Management Science, Springer Science+Business Media, LLC, 2018

Conference Papers

- M. Mirto, **A. Mariello**, A. Nuzzo, M. Mancini, A. Raolil, O. Marra, S. Fiore, C. Sirca, M. Salis, V. Bacciu, D. Spano, G. Aloisio, "*The OFIDIA Fire Danger Rating System*", 3PGCIC 2015, Krakow, Poland, November 4-6, 2015
- C. Palazzo, **A. Mariello**, S. Fiore, A. D'Anca, D. Elia, D. N. Williams, G. Aloisio, "*A Workflow-Enabled Big Data Analytics Software Stack for eScience*", HPCS 2015, Amsterdam, The Netherlands, July 20-24, 2015
- S. Fiore, M. Mancini, D. Elia, P. Nassisi, F. V. Brasileiro, I. Blanquer, I. A. A. Rufino, A.C. Seijmonsbergen, C. O. Galvao, V. P. Canhos, **A. Mariello**, C. Palazzo, A. Nuzzo, A. D'Anca, G. Aloisio, "*Big data analytics for climate change and biodiversity in the EUBrazilCC federated cloud infrastructure*", ACM International Conference on Computing Frontiers 2015, Ischia, Italy, May 18, 2015
- S. Fiore, A. D'Anca, D. Elia, C. Palazzo, **A. Mariello**, P. Nassisi, G. Aloisio, "*The Ophidia framework: toward big data analytics for climate change*", SISC 2nd Annual Conference Proceedings, Venice, Italy, September 29-30, 2014

- Conferences**
- Learning and Intelligent Optimization Conference (LION) 12, Kalamata, Greece, June 10-15, 2018 (**Web chair**)
 - ESRIN, Frascati, Italy, October 12-14, 2015 (*e-Poster co-author*)
 - HPCS 2015, Amsterdam, the Netherlands, July 20-24, 2015 (**Demo presenter**, *Demo co-author*)
 - ICFBR 2015, Alghero, Italy, May 26-29, 2015 (*Presentation co-author*)
 - EGI Conference 2015, Lisbon, Portugal, May 18-22, 2015 (**Demo co-presenter**)
 - EGU General Assembly 2015, Vienna, Austria, April 12-17, 2015 (**Speaker**)
 - HPCS 2014, Bologna, Italy, July 21-25, 2014 (*Demo co-author*)
 - CMCC Annual Meeting, Marina di Ugento (Lecce), Italy, June 10-13, 2014 (*Poster co-author*)
- Projects**
- **INDIGO-DataCloud** (*INtegrating Distributed data Infrastructures for Global ExpLOitation*)
 - Requirements analysis and workflows design for the climate change community (May-Jun 2015)
 - **CLIPC** (*CLimate Information Platform for Copernicus*)
 - Design of a caching system for the analysis of impact indicators (Dec 2014-Mar 2015)
 - **OFIDIA** (*Operational Fire Danger prevention plAtform*)
 - Design and implementation of the online data archive and related data access and transformation services (Feb 2014-Sep 2015)
 - **OrientGate** - a network for the integration of climate knowledge into policy and planning
 - Design and implementation of the data management platform (Nov 2013-Jan 2014)
- Certifications**
- **Engineer** registered with the Order of Engineers of the Province of Lecce, Italy, Section A, Sector C (Information Engineering), n. 3638 (2014-present)
- Memberships**
- IEEE Computational Intelligence Society Member (2016-present)
 - IEEE Member (2013-present)
- Honours and Awards**
- In 2008 awarded the honor of '**Alfiere del Lavoro**' by the President of the Italian Republic for school merits (grade average of 10/10 and first among the best 25 students in Italy for the 2003-2008 period)
 - In 2008 winner of the *National Biology Olympiad* and member of the Italian team at the *International Biology Olympiad* in Mumbai, India
 - In 2007 winner of ENI's national competition '*Giovani, Energia del Futuro*' for the design of an Energy Plan for the town of Gallipoli (Lecce), Italy