

Mario Dagrada

R&D Engineer

Building high performance applications

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Professional experience

- 2018– **R&D Software Engineer**, *Forescout Technologies*, Eindhoven (The Netherlands).
Present Protecting critical infrastructure from cyberattacks.
- developing prototype of a new product for incident response
 - building novel algorithms for security event correlation into the main product
 - successfully supervised 3+ PhD and master students and counting
 - managing a European project on hospitals cybersecurity (SAFE CARE)
- 2016–2018 **R&D Software Engineer**, *Atos Bull*, Grenoble (France).
Building world-class supercomputers.
- contributed to the OpenMPI open source project
 - optimized performance of scientific applications
 - acted as Scrum master for a team of 8 developers
 - 1 scientific publication and 1 patent
- 2013–2016 **Research Scientist**, *Université Pierre et Marie Curie*, Paris (France).
PhD program in condensed matter physics.
- developed a distributed software for material simulations
 - numerical simulations and data analysis on superconducting materials
 - 4 scientific publications and several conferences
- 2014–2015 **Invited researcher**, *Comisión Nacional Energía Atómica*, Buenos Aires (Argentina).
- managed an international scientific project on superconductors
 - maintained and improved a local computer cluster

Education

- 2013–2016 **Ph.D in computational physics**, *Université Pierre et Marie Curie*, Paris (France).
2011–2013 **International Master program in Physics of Complex Systems**, *Politecnico di Torino*, Turin (Italy), *Université de Paris Sud-Orsay* and *École Normale Supérieure de Cachan*, Paris (France), 110/110 with honors.
2009–2011 **Bachelor in Physical Engineering**, *Politecnico di Torino*, Turin (Italy), 110/110 with honors.

Skills

- Soft
- extremely good team player
 - organized and autonomous
 - used to manage several projects at the same time
 - proficient in technical documentation and presentations

Technical

- object-oriented and algorithm design, experience with NoSQL databases
- cybersecurity: threat intelligence, intrusion detection systems, security events correlation
- supercomputer architecture and networking, distributed applications
- extensive experience in profiling and optimization of scientific codes
- extensive experience in Linux and GNU development environment
- good experience with data analysis and statistical methods
- Scrum methodology

Tools

- C, PYTHON, C++11 (and basics of C++17), Java, Matlab, Typescript
- scripting: Bash, Awk, Lua
- databases: PostgreSQL, Neo4J, ElasticSearch
- libraries: MPI, OpenMP, CUDA (basics), Boost (Asio, Multithreading, MPI), LAPACK, scikit-learn, pandas, React, Redux
- tests: JUnit, Boost unit tests, CppUnit, PYTHON unittest
- Valgrind, Intel Vtune, Git, SVN, \LaTeX

Languages

English	Advanced	<i>Level C1</i>
French	Advanced	<i>Level C1</i>
Spanish	Advanced	<i>Level B2</i>
Dutch	Basic	<i>Level A2</i>
Italian	Mother tongue	

Interests

- languages and natural language processing
- blockchain technology and its applications
- amateur tennis player since several years
- avid reader of history essays and science-fiction novels