

Mario Dagrada

R&D Software Engineer

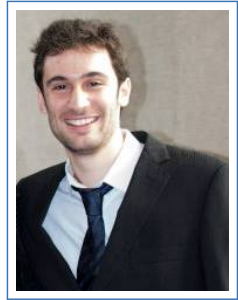
Passioned about data engineering challenges

Eindhoven, The Netherlands

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📄 <https://madagra.github.io>



Skills

- **Core competencies:** software architecture and development, data engineering, distributed systems, project management, Linux
- **Programming:** Python, C++, Java, C, Typescript, Lua, Bash
- **Relevant Technologies:** Spark, Kafka, gRPC, RESTAPI, Docker, AWS stack, PostgreSQL, Neo4j, Elastic stack, scikit-learn, PyTorch
- **Machine Learning:** clustering, time series analysis, tree-based classification
- **Cybersecurity:** TCP/IP stack, IoT and industrial networks, protocol analysis, threat detection and investigation
- **Soft skills:** autonomy and organization, technical writing and presentations, student and new employees supervision, Scrum methodology

Relevant Professional experience

- 2019–present **Product Innovation Lead**, *Forescout Technologies*, Eindhoven (The Netherlands).
 - build data pipeline for a new cloud-based product line for cyberthreat investigation
 - lead the transition of several core services to AWS cloud
 - define the product innovation roadmap in the Forescout industrial business unit
- 2018–2019 **R&D Software Engineer**, *Forescout Technologies*, Eindhoven (The Netherlands).
 - develop SilentDefense, a distributed software for industrial network security
 - design machine learning based solutions for security events correlation
 - protocol analysis and reverse engineering
 - contribute to several European projects on cybersecurity for critical infrastructures
- 2016–2018 **R&D Software Engineer**, *Atos Bull*, Grenoble (France).
 - development and optimization of distributed applications for simulations of materials
 - contribute to the OpenMPI communication library for high-performance interconnects
 - Scrum master for a team of 8 developers
- 2013–2016 **Researcher**, *Université Pierre et Marie Curie*, Paris (France).
 - develop TurboRVB: a distributed software for material simulations
 - numerical simulations and data analysis for material science
 - maintenance and upgrade of local university 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.

Relevant publications

1. K. Nakano, C. Attaccalite, M. Barborini, L. Capriotti, M. Casula, E. Coccia, M. Dagrada *et al.*, *TurboRVB: a many-body toolkit for ab initio electronic simulations by quantum Monte Carlo*, arXiv:2002.07401 (2020)
2. M. Sergent, M. Dagrada, P. Carribault, J. Jaeger, M. Pérache, G. Papauré, *Efficient communication/computation overlap with MPI+OpenMP runtimes collaboration*, European Conference on Parallel Processing, 560-572 (2018)

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
- Trading and cryptocurrencies
- Tennis competition
- Guitar and piano