

Michaël Gabay, PhD

Chief Product Officer

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Experience

- January 2017 – Present **Chief Product Officer, Artelys, Paris, France.**
I create, innovate and lead Artelys software developments and architecture.
In particular, I lead developments of the Artelys Crystal software platform and Artelys Knitro.
I also provide expertise in optimization and energy.
- *Artelys Crystal is a **software platform** used to create specialized software dealing with complex business problems using quantitative mathematical methods. For instance, Artelys Crystal Super Grid, is a specialized software dedicated to long term capacity expansion planning studies in power systems.*
 - *Artelys Knitro is the **leading solver for nonlinear optimization**. The solver can be used to solve any mathematical optimization problem (including blackbox optimization, mixed-integer, and large scale problems).*
- April 2015 – December 2016 **Project Manager, Artelys, Paris, France.**
I led projects in **R&D, software development** and **energy studies**.
Especially, I managed software developments on Artelys Knitro, Artelys Crystal Super Grid and later, led the reunification of the Artelys Crystal software products within the Artelys Crystal Platform.
I also intervened as an optimization expert on various research projects and as a consultant and project manager on energy studies, for example, for the French Regulatory Commission of Energy.
- October 2014 – March 2015 **Optimization Expert, Artelys, Paris, France.**
As an optimization and software development expert, I worked on software developments, consulting and R&D projects, especially in the field of energy. For example:
- *Software developments and maintenance of Artelys Crystal Super Grid.*
 - *Study of localized electricity injection costs to assess regional balance between regions in France.*
 - *Evaluation and enhancement of a network state merging module used to consolidate European transmission operators data into a consistent network state (done within European project iTesla: <http://www.itesla-project.eu/>)*
- October 2011 – September 2014 **PhD Candidate, G-SCOP Laboratory – Université Joseph Fourier, Grenoble, France.**
PhD thesis focused on Complexity and Combinatorial Optimization.
Teaching Assistant, Grenoble INP – Génie Industriel, Grenoble, France.
Teachings in Computer Science, Scheduling and Probabilities (bachelor's degree and master's degree, 192 hours).
- February 2011 – July 2011 **Master's Thesis, G-SCOP Laboratory, Grenoble, France.**
Research project on the identical coupled-tasks scheduling problem.
- June 2010 – September 2010 **Internship, Amadeus, Sophia-Antipolis, France.**
Developed an Eclipse plug-in to generically serialize/deserialize Java objects to and from XML using reflection.

Education

- 2011–2014 **PhD in Mathematics and Computer Science, Université Joseph Fourier, Grenoble, France.**
PhD thesis: *High-Multiplicity Scheduling and Packing Problems*
Research in Combinatorial Optimization, Operations Research and Computer Science, on scheduling and packing problems under encoding size assumptions.
- 2010–2011 **Master's Degree in Computer Science, Université Joseph Fourier, Grenoble, France.**
Specialization in Operations Research and Combinatorial Optimization.
- 2008–2011 **Diplôme d'ingénieur (equivalent to Master's Degree) in Computer Science and Applied Mathematics, ENSIMAG (Grenoble INP), Grenoble, France.**
Specialization in Decision Sciences with a very strong emphasis on Computer Science and Operations Research.

