



Jean-François Baffier, Ph.D.

Researcher, Software Developer, and Founder

*Researcher and software developer combining scientific depth,
technical leadership, and practical implementation.*

Technical expertise

Research fields	Combinatorial optimization, graph theory and algorithms, decision-making, scientific computing, interpretable AI, distributed computing, and memory-efficient data structures.
Software development	Architecture, algorithms, reusable libraries, APIs, testing, continuous integration, documentation, profiling, performance engineering, and open-source maintenance.
Main languages	Julia and C/C++, complemented by Python, JavaScript, HTML/CSS, SQL/graph databases, and $\LaTeX$.
Julia	Extensive experience across scientific packages, optimization frameworks, graph software, distributed and multithreaded computing, developer tooling, and production services.
Full-stack development	Web backends, REST/OpenAPI clients, data and content pipelines, messaging integrations, bots, and browser-facing applications.
Tools	Git, Linux, JuMP, CPLEX, Gurobi, continuous integration, and reproducible experimentation.

Recent Experience

2026–present	President & Co-founder , <i>Mirage Interactive</i> , Castelnau-le-Lez, France Company leadership and technical direction. Mirage Interactive was officially incorporated in June 2026.
2021–2025	Senior Researcher , <i>Internet Initiative Japan — Research Laboratory</i> , Tokyo, Japan Led work on a semi-automated optimization framework, cloud resource management, and network software.
2021	Assistant Professor , <i>The University of Tokyo</i> , Tokyo, Japan IBM Quantum Learning.
2020	Data Science Consultant , <i>Air360</i> , Remote Interpretable AI using SHAP for product quality analysis.
2019–2021	Postdoctoral Researcher , <i>RIKEN Center for Advanced Intelligence Project</i> , Tokyo, Japan Led research on information networks, large-scale optimization, and memory-efficient data structures.

Selected public software

Network & cloud	NetworkVisualizer.jl, NetworkVisualizer.js, and KuMo.jl.
Optimization & algorithms	The JuliaConstraints ecosystem, NetworkFlows.jl, and CompressedStacks.cpp.
Julia tools & applications	PerfChecker.jl, StaticWebPages.jl, Bibliography.jl, and ChatThemAll.jl.

Education

2015	Ph.D. in Information Science , <i>The University of Tokyo</i> , Japan Graphs, algorithms, and optimization.
2011	Master of Research in Computer Science , <i>Université Paris-Sud</i> , France Mathematical programming.
2007	B.Sc. in Computer Science and Mathematics , <i>Université Paris-Sud</i> , France

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