

# NICOLAS MAILLOT | RESUME

- › **Status:** Program Director at Amadeus
- › **Background** Ph.D., Computer Science (AI | ML)
- › **Fields:** Machine Learning, Software Engineering, Data Science & Engineering, Management
- › **Loves:** Running (Trail, Marathon), Retro-Computing, Blues/Rock Guitar



## Summary

- 6 year+ experience in leading data science and engineering teams, with a strong product mindset.
- Aiming at creating value and solving real-world problems applying advances in computer science (AI, information retrieval, machine learning, distributed systems).
- Author of 10 publications in international conferences and journals. Intellectual property creation (4 patents granted).
- Specialties: software engineering, data science, search, artificial intelligence, machine learning, Hadoop ecosystem, caching, api design, observability, scalability, reliability, team management, program management, recruitment, executive communication.

## Experience

Dec. 2019 -	<b>Program Director</b>	Amadeus
	<ul style="list-style-type: none"> <li>› Leading a transversal organization, laying down the engineering foundations of a new business unit dedicated to business travel.</li> <li>› Areas covered: analytics, stability, observability, performance, quality.</li> </ul>	
2013-2019	<b>Senior Manager, Analytics &amp; Data Mining</b>	Amadeus
	<ul style="list-style-type: none"> <li>› Part of the flight search group, powering the search of many top travel brands worldwide. Grown a data team from 5 up to 30+ members.</li> <li>› Three main objectives: (1) Improvement of the Amadeus flight search product line (using ML and data science). (2) Powering Amadeus customers (OTAs &amp; Airlines) with actionable insights using market data. (3) In-depth monitoring of the flight search product line. Leading to superior understanding of customer flows. Double digit improvements achieved in key areas such as conversion, response time, hardware cost reduction.</li> </ul>	
2010-2013	<b>Research Engineer, Operations Research</b>	Amadeus
	<ul style="list-style-type: none"> <li>› Pioneering big data and ML production applications in the company: distributed approach to optimal refresh of air fare caches using machine learning techniques; Highly responsive insights into world-wide flight searches.</li> <li>› Innovative product development: developer of Travel Seeker for iPad showcasing Amadeus in-memory flight search solutions; Contributions (popularity models, api design) to Amadeus Featured Results, awarded at Phocuswright (leading industry conference).</li> </ul>	
2007-2010	<b>Software Engineer, Hotel Search &amp; Availability</b>	Amadeus
	<ul style="list-style-type: none"> <li>› Hotel platform activation: development of Python scripts to handle the bootstrapping of rate and inventory data of the new hotel distribution platform running on GNU/Linux. Maintenance of non-regression tests. Participation to the production cutover (for 100k hotel properties).</li> <li>› Hotel search engine: Design, implementation, and planning. Highly-optimized in-memory C++ search solution (less than 5ms). Database Tuning. This enables responsive end-user applications like real-time hotel search on maps.</li> </ul>	
2006	<b>Research Fellow, Media Understanding</b>	Instute for Infocomm Research, Singapore
	<ul style="list-style-type: none"> <li>› Conception and implementation of a multimedia (text+image) information retrieval system. Participation to the international ImageCLEF competition. Result : 1st / 12.</li> <li>› Conception and implementation of an object recognition system. Application: search for touristic information from landmark images captured by mobile phones.</li> </ul>	

2006

**Teaching Assistant**

Université de  
Nice-Sophia Antipolis

- › Insitute for Networking and Telecommunications: Introduction to JAVA (98h); System Programming in C (21h.)
- › School of Computer Science: Object Oriented Design and Programming in C++ (48h).

2000

**Software Development Intern**

Ministry of Ecology and  
Transport

- › Integration of a boat trajectory simulator in a distributed environment (Java/Corba). Development of a graphical user interface and design of load-balancing mechanisms. Application: accident prevention in harbours.
- › Tech. Environment: Java, Swing, threads, CORBA, Linux, CVS

## »» Education

2002- 2005

**Ph.D.**

INRIA Sophia-Antipolis

- › Ph.D. Topic: Ontology based object recognition. Artificial Intelligence methods combined in a novel way aiming at semantic image interpretation (image processing, machine learning, reasoning, knowledge representation, ontology).
- › Application: Search engine able to detect a set of predefined objects (e.g. aircrafts, ships) in large image databases. Integrated in Kinomai solutions (a Paris-based video understanding startup).

1999 - 2002

**Master of Science**

Université de  
Technologie de  
Compiègne

- › Double Computer Science Master (Research & Engineering) received with highest honours, ranking 1/36 for the research part.
- › Followed a mix of courses in machine learning, software engineering, operations research, and computer vision.

## »» Selected Publications

- Ontology Based Complex Object Recognition (N. Maillot, M. Thonnat). Image and Vision Computing Journal, Volume 26, Number 1, January 2008
- Latent Semantic Fusion Model for Image Retrieval and Annotation (T-T. Pham, N. Maillot, J-P. Chevallet, J-H. Lim). ACM Sixteenth Conference on Information and Knowledge Management (CIKM 2007), Lisboa, Portugal 6-9 November 2007
- A Weakly Supervised Approach for Semantic Image Indexing and Retrieval (N. Maillot, M. Thonnat). International Conference on Image and Video Retrieval (CIVR 2005), Singapore, 20-22 July 2005
- Inter-Media Pseudo-Relevance Feedback. Application to ImageCLEF 2006 (N. Maillot, J-P. Chevallet, J-H. Lim). ImageCLEF 2006, Cross Language Evaluation Forum (CLEF), Alicante, Spain, 21-23 Sept 2006