

# Christophe-Marie Duquesne

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Specialties: C++, Python, Linux, Operations Research  
Doctor in Applied Mathematics and Computer Science

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## Corporate Experience

- Since June 2014 *Data Scientist for Amadeus Travel Intelligence | Germany* (Munich, Germany).  
Participated in the architecture of the Travel Intelligence platform and in the organization of devops activities. Wrote an authenticating layer on top of nginx and lua. Automated logs of every requests with ELK and HAproxy (deployed with chef). Worked on the redesign of a large scale model for estimating passenger traffic over airline networks.
- Nov 2013-Jun 2014 *Data Scientist for Airconomy* (Frankfurt am Main, Germany).  
Hadoop-based Mining on Travel Industry Data. Implemented Flask web services, shipped as debian package and continuously integrated with Jenkins.
- 2009-2012 *PhD in Operations Research with Amadeus* (Sophia Antipolis, France).  
Researched how to assign aircraft on an airline network in the most efficient way. I authored several projects, including a C++ solver, a Python suite of 20+ command line tools, and Hadoop data mining scripts. I also worked as a teaching assistant at the university, further improving my communication and public speaking skills.
- 2008 (3 months) *Internship at Rio Tinto Alcan* (Clermont Ferrand, France).  
Co-authored a C++ library for optimizing the revenue of a metal factory. This work was published in the corporate journal of the company.
- 2007 (3 months) *Internship at GE Healthcare* (Paris, France).  
Elaborated an UML spec for the refactoring of 20.000 lines of C++.

## Selected Open Source Contributions

- Python Contributor to [pulp-or](#), a linear programming Python library. Author of small tools, like [michel](#), a command line program providing bidirectionnal synchronization of google tasks with text files.
- C++ Author of [yaposib](#), a Python binding to COIN-OSI that is now supported by [pulp-or](#).
- C Author of [lazympsolverlibs](#), a set of proxy libraries targeting cplex, gurobi and xpress. I also started writing [sharebox](#), a distributed FUSE file system based on git.
- Java Author of [talkmyphone](#), an android application allowing phone control via gtalk. It had 10.000+ downloads, and was forked 50 times. It was then successfully handed over to [other developers](#).
- Misc Lua, Ada, Bash, Makefile, m4, autotools, cmake... See my [github résumé](#). My [kudorank](#) on ohloh is 9, among the top 2% of opensource developers.
- Linux My daily operating system: I [blog](#) about it sometimes.

## Education

- 2009-2012 *PhD in Mathematics and Computer Science at G-SCOP Laboratory* (Grenoble, France).  
Title: Integration of Fleet Deployment and of Passenger Service in Airline Schedule Management. Done at Amadeus, in the Operation Research team led by [Semi Gabteni](#). Advisors: [Denis Naddef](#), [Olivier Briant](#). Defended in January 2013.
- 2005-2009 *MS in Computer Science in ENSIMAG* (Grenoble, France).  
Top French school of Applied Mathematics and Computer Science with highly selective recruitment.
- 2002-2005 *Preparatory classes in Lycée Thiers* (Marseille, France).  
Mathematics and Physics courses before a national competitive examination to Grandes Écoles.

## Activities and interests

Hobbies	I like travelling. I backpacked in 13 countries in Eastern Europe and South East Asia.
Sports	Running, Cycling, Hiking. I also played rugby union for 7 years.
Activities	I was the president of the <a href="#">grand cercle</a> , one of the largest French campus student associations (5.000 members) during university.

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