

# Christophe-Marie Duquesne

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

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## Corporate Experience

- Since 2013      *Data Scientist for Airconomy* (Frankfurt am Main, Germany).  
Data mining on various sources to forecast passenger demands over airline networks.
- 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 [grand cercle](#), one of the largest French campus student associations (5.000 members) during university.

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