# Christophe-Marie Duquesne

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

## Corporate Experience

Since 2013

*Data Scientist for* [*Airconomy*](https://www.airconomy.com/) (Frankfurt am Main, Germany).

Data mining on various sources to forecast passenger demands over airline networks.

2009-2012

*PhD in Operations Research with* [*Amadeus*](http://www.amadeus.com/amadeus/amadeus.html) (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*](http://www.riotintoalcan.com/) (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*](http://www3.gehealthcare.com/en/Global_Gateway) (Paris, France).

Elaborated an UML spec for the refactoring of 20.000 lines of C++.

## Selected Open Source Contributions

Python

Contributor to [pulp-or](http://code.google.com/p/pulp-or/), a linear programming Python library. Author of small tools, like [michel](https://github.com/chmduquesne/michel), a command line program providing bidirectionnal synchronization of google tasks with text files.

C++

Author of [yaposib](http://yaposib.readthedocs.org/en/latest/index.html), a Python binding to COIN-OSI that is now supported by [pulp-or](http://code.google.com/p/pulp-or/).

C

Author of [lazylpsolverlibs](https://code.google.com/p/lazylpsolverlibs/), a set of proxy libraries targeting cplex, gurobi and xpress. I also started writing [sharebox](https://github.com/chmduquesne/sharebox-fs), a distributed FUSE file system based on git.

Java

Author of [talkmyphone](http://code.google.com/p/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](http://code.google.com/p/gtalksms/).

Misc

Lua, Ada, Bash, Makefile, m4, autotools, cmake... See my [github résumé](http://resume.github.com/?chmduquesne). My [kudorank](http://meta.ohloh.net/kudos/) on ohloh is 9, among the top 2% of opensource developers.

Linux

My daily operating system: I [blog](http://blog.chmd.fr) 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](http://www.linkedin.com/in/semigabteni). Advisors: [Denis Naddef](http://www.g-scop.inpg.fr/~naddefd/), [Olivier Briant](http://www.g-scop.inpg.fr/~brianto/index.php?page=1). 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](http://www.grandcercle.org), one of the largest French campus student associations (5.000 members) during university.

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