

# Christophe-Marie Duquesne's resume

## Christophe-Marie Duquesne

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Software engineer, Doctor in Applied Mathematics

I love to ship beautiful code, and I am looking for fun, ambitious projects.

Python, Linux

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### Corporate Experience

- Since 2013** *Data Scientist for **Amadeus** | **Travel Intelligence*** (Munich, Germany).  
Hadoop-based Mining on Travel Industry Data (Max 1 PetaByte). Wrote Flask web services, shipped as Debian packages and continuously integrated with Jenkins. Participated in various devops tasks: log collection, user authentication, transfer between data centers.
- 2009-2013** *PhD in Operations Research with **Amadeus*** (Sophia Antipolis, France).  
Researched how to assign aircraft on an airline network in the most efficient way. Authored a C++ solver, a Python suite of 20+ command line tools, and Hadoop data mining scripts. Worked as a teaching assistant at the university and further improved my communication and public speaking skills.
- 2008 (3 months)** *Internship at **Rio Tinto Alcan*** (Clermont Ferrand, France).  
Authored a C++ library for optimizing the revenue of a metal factory. The software was based on a Linear Programming model and outperformed the existing in-house tool.

### Open Source Contributions

- Python** Contributor to **pulp-or**, a Linear Programming library. Author of **flasfka**, an http bridge for posting/getting messages to Apache Kafka. Author of **persistentdicts**, a library exposing various databases with Python dict-like interfaces
- Lua** Author of **lighttpd-external-auth**, a lighttpd magnet script allowing access control via mechanisms such as OpenId.
- Go** Author of **github.com/chmduquesne/rollinghash/adler32**, a rolling version of the Adler32 hash. Contributor to **jackpal/gateway**, a library for discovering the address of a LAN gateway used in **Tapei-Torrent**.
- C++** Author of **yaposib**, a Python binding to **coin-Osi**. Awarded **full membership** in the coin-or foundation in return.

- C** Author of [lazylibs](#), a set of proxy libraries targeting cplex, gurobi and xpress.
- Java** Author of [talkmyphone](#), an android application allowing phone control via gtalk (10.000+ downloads, forked 50 times on googlecode). It was then successfully handed over to [other developers](#).
- Misc** Experience with Linux, Ada, Bash, Makefile, m4, autotools, cmake... Documented on my [github](#) account and my [blog](#).

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## Education

- 2009-2012** *PhD in Mathematics and Computer Science at G-SCOP Laboratory* (Grenoble, France).  
**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.

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## 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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