

Christophe-Marie Duquesne

Operations Research Analyst

After a PhD in Operations Research, I evolved towards Data Science for the Travel Industry. I believe in intelligent data driven decisions. I am French, living in Munich.

Corporate Experience

- Since 2013** *Data Scientist for **Amadeus | Travel Intelligence** (Munich, Germany).*
Hadoop-based Mining on Travel Industry Data (Up to 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** Author of **yaposib**, a Python-C++ binding to **coin-Osi**. Awarded **full membership** in the coin-or foundation in return. 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.
- C** Author of **lazympsolverlibs**, 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**.
- 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**.

Misc Experience with **Arch Linux**, Ada, Bash, Makefile, m4, autotools, cmake... See my **github** account and my **blog**.

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.

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.

chmd@chmd.fr • +49 157 530 431 00 • 30 years old
Einsteinstr. 129, 81675 Munich, Germany

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