

Christophe-Marie Duquesne

Data Technology Leader

Data Technology Leader with an Operations Research background.
In love with data driven decision making. French, living in Munich.

Corporate Experience

2019-Now *Domain Technology Officer Marketing for **Flixbus** (Munich, Germany).*

Technology Leader of the Flixbus Marketing Organization: 3 Data Science teams, 2 Analytics teams, 1 Salesforce/PHP team (37 persons across 2 locations). Guiding the rearchitecture of the company data to comply with GDPR by design while generating more value. Applying years of experience in Data Science, Data Engineering and Software Development to empower the business in making smarter decisions.

2019 *Principal Data Engineer for **Flixbus** (Munich, Germany).*

Data Engineering for AB-testing. Drove the choice and adoption of a unified tracking tool for web and mobile, enabling real-time analytics use-cases, faster page loads, unified metrics and a 6-digit cost reduction for the company (Snowplow, Kafka, S3, Athena, Snowflake, Datadog). Drove the reorganisation of the Mobile development to favor faster delivery, smoother cross-team communication, and foster a mobile-first mindset.

2013-2019 *Data Scientist for **Amadeus** (Munich, Germany).*

Hadoop-based Mining on Travel Industry Data (Petabyte scale). Wrote web services (Flask, Sqlite), shipped as Debian packages, continuously integrated with Jenkins. Implemented and deployed a high performance cross data center link, aligning multiple parts of the organization in the process (IBM WebSphere MQ, Apache Kafka). Participated in the Data Lake evaluation and maintenance. Contributed to log collection, user authentication and certificate management (Logstash, Cloudera, Kerberos).

2009-2013 *PhD in Operations Research with **Amadeus** (Sophia Antipolis, France).*

Researched how to best assign aircraft on an airline network. Authored a C++ solver and a Python suite of 20+ command line tools (Cplex, Gurobi). Benchmark performed against real life data, pioneering Hadoop usage in Amadeus. Worked as a teaching assistant at the university, improving 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 (Cplex). The software was based on a Linear Programming model and consistently 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.
Go	Author of github.com/chmduquesne/rollinghash , a library of rolling checksums used in syncthing and kopia . Contributor to jackpal/gateway , a library for discovering the address of a LAN gateway used in Tapei-Torrent .
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 .
C	Author of lazympsolverlibs , a set of proxy libraries targeting cplex, gurobi and xpress.
Misc	Experience with Arch Linux, Ada, Bash, Makefile, m4, autotools, cmake... See my github account and my blog .

Education

- 2009-2013** *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**.
- 2005-2009** *MS in Computer Science in ENSIMAG (Grenoble, France).*
- French engineering school specialized in Applied Mathematics and Computer Science.

Activities and interests

Paragliding	Pilot since 2015.
Other sports	Ski, Bouldering. 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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