Christophe-Marie Duquesne

Data Architect and Technology Leader

Technology Lead of the Marketing Domain at Flixbus. Data
Architect, Operations Research Specialist and Software Engineer.
In love with data driven decision making. French, living in Munich.

Corporate Experience

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

"CTO" 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 by design with GDPR while generating more value. Applying years of experience in Data Science, Data Engineering and Software Development to empower the business in making better 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. Participated in various devops tasks: log collection, user authentication, transfer between data centers (IBM WebSphere MQ, Apache Kafka, 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 (mined with Hadoop). 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.

C   Author of **lazylpsolverlibs**, 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**, a library of rolling checksums used in **syncthing**. 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

2009-2013   *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).

Top French school of Applied Mathematics and Computer Science with highly selective recruitment.

Activities and interests

Hobbies   Backpacked in Eastern Europe, South East Asia and North America.

Sports   Ski, Paragliding, 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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