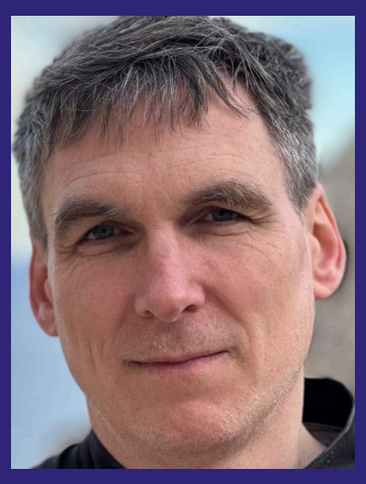
Senior Software Engineer
Ludovic Aubert



Education

Engineering Degree with Major in Software and Electronics

Ecole Centrale Paris *1992 - 1996*

Preparatory School with focus on Maths

Lycee Sainte Genevieve *1990 - 1992*

Project

I hold an Engineering degree from the Ecole Centrale in Paris and combine a strong background in Mathematicswith 25 years of experience working on diversified software and data projects.In the first period of my career, I mostly worked on C++ projects, some of which required algorithmic design.In the second period, I mostly worked on Data projects. I am looking for complex and critical projectsusing a mix of data, software and web technologies.

Skills

- C++, SQL, Css
- JavaScript, JSON, Html
- Python
- SQL Server, PostgreSQL, Oracle
- GIT
- Linux
- NodeJS

Interest

- LLM, Attention
- Kubernetes

Languages

French (native), Spanish(B1), German(C2), English(C2)

Contact

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stackoverflow.com/users/3046585/ludovic-aubert
https://github.com/ludoaubert
https://ludoaubert.github.io/pglite-linkedboxdraw/table_edit_ti.html
linkedin.com/in/ludovic-aubert-831bb875
detailed resume

Personal Project

algorithm development for database structure understanding

I developed an algorithm to quickly understand database structures, initially conceivedduring an internship at EDF. Later, I refined this algorithm and expanded its capabilities,integrating various technologies like C++, PostgreSQL, and NodeJS to create an interactive web-basedsolution for visualizing data relationships.

Achievements

Santarelli Group *2021-2025*

Patent database schema migration and merge

I performed the migration into a new schema and merger of patent databases during a company acquisition, developing scripts and resolving critical issues. This initiative saved hundreds of thousands in cloud costs, streamlined data management, and supported the integration of three companies, valued in millions.

Patent inventor deduplication process

Developed a Python-based graph algorithm to deduplicate inventor data during patent migration, consolidatingmultiple records into a single inventor table. Successfully created a table with 16,000 unique inventors,improving data reliability.

Extraction of 4 million documents

Wrote scripts and ran the extraction of 4TB of archived corporate documents from Oracle (files stored in DB) into the filesystem.

developed a module using C++

development in C++ of a functionality to create a directory structure to store legal documents on the migration target system. The structure depends on a set of parameters specific to a patent.

Prototype development of a patent web interface

Created a Proof of concept using NodeJS and new SQL JSON capabilities to navigate the patent database in a web browser.Developed a quick prototype of web interface to navigate patent information.

Paprec *2019-2020*

Plastic recycling plants traceability graph

I created a script to generate traceability graphs for six plastic recycling plants.After identifying a bug, I suggested rewriting the script, which was accepted, and I developeda more efficient version using advanced SQL features, resulting in a scalable solutionthat produced up to 6 million rows.

Flexible HR database with tracking

Design from scratch of a motivation and tracking database for HR. Due to integration of COVED, PAPREC needs a more flexible database design. Design of a test prototype to validate the structure.Integration of paid vacation trackers with a 3 year record.

ELT for Massive geographic data

Paprec ESRI Geographic Data Hub. Development of a SQL+python ELT to transfer GBytes of data hosted by various providers such as Kizeo, Novacom, Simpliciti, Sigrenea for Paprec into a geographic database hosted on the corporate infrastructure.

Quantalys *2017-2018*

Designing scalable graphical interface for 60 life insurance fields

Design and development of a simple and scalable graphical interface to manage 60 fields for life insurance,replacing an overly complex, unmaintainable solution. The project took 3 months, saving 1 full-time year,with positive user feedback on its functionality.

Euronext *2015-2017*

Non-regression test portfolio using Google Tests

I developed a regression testing portfolio using Google Test for the Optiq project at Euronext, ensuring newfeatures didn’t impact existing functionality. This initiative led to widespread adoption of automated unit andintegration tests, contributing to the project’s success and timely delivery.

Development of 3 modules in C++

I developed 3 sub modules for the MDSpy module of the flagship Optiq project:MDSpyReader: application that listens to what customers receive and persists it to Kafka.Spy deduplication: deduplication of market data which is sent on 2 independent physical lines.Implementation and test of a UDP flow control algorithm (shaping).

Hobby

Bike trip and camping: Paris to Barcelona, 8 days

A bike trip and camping journey from Paris to Barcelona in 8 days.I accompanied my son, handling the camping gear, riding 120 km dayly through beautiful landscape,planning the route, and ensuring the trip ran smoothly within a budget of 10 euros per day.