

# Ophir LOJKINE

SOFTWARE ENGINEER



## About



Paris FR



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github.com/lovasoa



lovasoa



Ophir LOJKINE

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Front-end web  
development

### Master

HTML CSS Typescript

Javascript WASM

Angular Vue.js Svelte

Scientific programming

### Intermediate

python pandas

tensorflow scipy

scikit-learn

Back-end software  
development

### Master

Python Rust Java Scala

Node PHP

Languages

French (Native tongue)

English (Good command, both  
written and spoken (TOEIC 930))

Russian (Conversational (I lived in  
Moscow for 2 years; my partner is

## Summary

I'm an enthusiastic French software engineer. My main interests include data science, software architecture, and optimization. I've studied software engineering in general, and data analysis in particular in France and Russia.

## Experience

### Hyxos

CTO

12/2018 - Present

Hyxos is a software development and consultancy company driven by a mission to implement cutting-edge digital technologies in the green energy sector. We develop a platform with the ambition to become the data backbone of all hydrogen industry players. As a consultancy, we also accompany major green electricity players in their development and their operations, focusing on leveraging the power of their data. As a CTO, my job is to oversee the tech team, transforming business ideas into working code.

- Grew the tech team from me alone to a passionate team of close-nit engineers.
- Designed a large integrated data platform with web, SCADA, and embedded components from scratch.
- Designed the mathematical optimizer making the platform smart.
- Worked at all levels, from running efficient embedded edge software in rust to running a large computing workload in Kubernetes.

### AutoGrid

Senior Software Engineer

12/2018 - Present

We built an energy data management platform for Total that allows energy market actors to cooperate efficiently, visualize their data and extract valuable insights, and manage their devices in the field.

- Wrote Python services that now handle sensitive and complex time-series in realtime in production every day.
- I had the occasion to work both on a large kubernetes cluster and embedded real-time devices with limited resources.
- Built insightful data visualizations with Grafana.
- Modeled a large multivariate optimization problem in Tensorflow

### Qwant

Data Engineer

09/2017 - 12/2018

Qwant is a search engine that does not track its users. It has the largest web index in Europe, the quality of which I contributed to. I was a member of the core 'data' team, working on the company's web crawlers, databases (indices), and data analysis tools.

- created a machine-learning model for the classification of user searches (using distributed word-embedding and clustering in Spark)
- Contributed to the crawlers, fixed many data-quality issues.
- Built data visualization tools.

### ERDF

Data science intern

04/2015 - 08/2015

ERDF (now Enedis) is the largest french electric network compagny. I interned as a data scientist, and built a workload prediction tool.

- used python with ipython, numpy, scipy and scikit-learn
- worked with an SQL database of over 10 million datapoints describing the evolution of electric consumption over ~5 years at several points in the distribution network.
- Built a web application to access the previsions.

## Interests

### Ethical Hacking

I found several security vulnerabilities in Firefox, Chrome, Safari, and a Mozilla website, and got awarded bug bounties from Mozilla and Google.

I love playing root-me.org challenges, and am an avid information security news reader.

### Theater

Played in Centrale Nantes' theater company

### Rowing

Practiced at Centrale Nantes

### Climbing

Practiced in Moscow

### Free software

using  
contributing code  
reporting bugs

## Education

### Bauman Moscow State University

09/2015 - 07/2017

Master's degree in Computer Science and Control Systems

- Master's thesis: implement, compare, and model several distributed join algorithms on Spark
- Relational algebra
- Post-relational databases
- Queuing theory
- UML modeling
- Project management
- Human factors

### École Centrale de Nantes

09/2013 - 07/2015

Grande École (master degree) in Engineering

- General engineering
- Object-oriented programming
- Databases
- Compilers
- Functional programming

## Volunteer

### SQLPage · <https://sql.ophir.dev>

05/2022 - Present

Free software developer

A SQL-only low-code website builder. SQLPage is a web application framework which helps building data-centric full-stack applications by writing only SQL. It uses a set of pre-built components and a smart variable system to remove all frontend and backend programming languages from the equation, letting data people focusing on what matters to them: data models and insights extraction.

### Sanipasse · <https://sanipasse.fr>

05/2021 - Present

Free software developer

Sanipasse.fr is the largest and most successful opensource EU Digital COVID Certificate verification software in France

- ~4M monthly requests served
- 100s of physical terminals, crated by multiple companies, use sanipasse throughout France

### WBO Online Whiteboard · <https://wbo.ophir.dev/>

08/2013 - Present

Free software developer

WBO is a fun side-project I'm working on in my free time. It's a free and opensource collaborative online whiteboard.

- ~4000 daily connections on the official instance, constantly growing
- Collaborating with onther contributors on Github

### Dezoomify Image Downloader · <https://dezoomify.ophir.dev/> 12/2013 - Present

Free software developer

I develop a suite of opensource tools to download zoomable images from museum websites. Also a very fun side-project, that taught me a lot.

- hundreds of websites supported
- started as a personnal tool, now has thousands of daily users

## Publications

### Optimal parameters for bloom-filtered joins in Spark

06/2017

an algorithm that joins relational database tables efficiently in a distributed environment using Bloom filters of an optimal size