

Maxence Ahlouche

Computer Scientist

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<https://maahl.net/cv>

Professional experience

- 2020 – now **Senior Software Engineer**, *Xeneta*, Oslo, Norway.
Backend developer in the Data Science team using Python (Flask), PostgreSQL, and some AWS (Lambdas and Batch mostly) with Terraform
- 2016 – 2020 **Ph.D. in Computer Science (unfinished)**, *University of Grenoble-Alpes*, Grenoble, France.
Research on using query feedback in DBMSs for adjusting future cardinality estimates of intermediary results of SQL queries, using PostgreSQL
- 2015 **Research in data mining**, *National Institute of Informatics*, Tokyo, Japan.
6-months research internship in artificial intelligence, deep learning, data mining
Analysis of the behaviour of drivers to automatically generate driving rules to be followed by autonomous vehicles
- Summer 2014 **Google Summer of Code**, *PostgreSQL*, from home.
Implementation of a clustering algorithm (*k*-medoids) in a machine-learning library (MADlib) compatible with PostgreSQL, GreenPlum and HAWQ
- Summer 2013 **Summer job in construction**, *DPD Concept*, Bergerac, France.
House building (inner walls, electricity, flooring)
- Summer 2012 **Development of an Access application**, *Internship at Airbus*, Toulouse, France.
Development of an indicators generating application in a Production quality service (non IT)

Skills

- Programming languages **Python:** proficient. Used at Xeneta, during my studies, for personal projects
Notable libs: Flask, Pandas, Seaborn, SQLAlchemy, Pytest
SQL: proficient with PostgreSQL's dialect. Used a lot during my PhD and at Xeneta
C: intermediate. Used mostly while working on PostgreSQL's source code during my PhD
Rust: beginner, but very interested. Go-to language for personal projects
Notable libs: Axum, Yew
Others: Bash commonly used; HTML, CSS, PHP occasionally used; C++ and Java regularly used during my studies.
- Infrastructure and Operations **PostgreSQL:** good mastery. Used extensively during my PhD, organized upgrade from 9.6 to 13 at Xeneta
Docker: used on my personal servers, orchestrated with docker-compose; used a lot at Xeneta to run our services in ECS, Batch or Lambda
Terraform: used to orchestrate the infra at Xeneta
AWS: used a couple of services, mainly Lambda and Batch
CI/CD: Gitlab CI used for linting, testing and deploying my personal projects, set up some Github actions at Xeneta
- Others **Excel:** Basic usage, occasionally used with Power Query for data cleaning

Languages

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|-----------|----------------------|--|
| French | Mother tongue | |
| English | Fluent | <i>Written and spoken fluently, maximum score achieved at the TOEIC test</i> |
| Spanish | Intermediate | <i>Studied for 5 years, good level at the 'A' levels</i> |
| Norwegian | beginner | <i>Currently working in Oslo, Norway</i> |

Studies

- 2012 – 2015 **INP-ENSEEIH** - **Master's degree in Computer Science**, Toulouse, France.
Engineering degree (French diploma equivalent to a Master's Degree) in Computer Science.
One semester spent in Tomsk, Siberian Russia.
Final project realised in a research lab in Tokyo, Japan
- 2010 – 2012 **IT HND**, *University of Technology of Bordeaux*, Bordeaux, France.
Mainly practical IT courses.