

Antoine Desbordes

Software engineer

✉ antoine.desbordes@gmail.com

in [antoine-desbordes-59142310/](https://www.linkedin.com/in/antoine-desbordes-59142310/)

🌐 antoine-de
May 31st 1985

Skills & Abilities

Programming	Rust, Advanced C++, Python
Optimization	Graph theory (mostly shortest path), mathematical programming, constraint programming, local search, decision tree, rules engine
Tools	Linux, Docker, ElasticSearch, Postgres, GIS, Boost

Work Experience

- Dec 2018 – **Software Engineer**, CODEURS EN LIBERTÉ, Paris.
Present Freelance developer at [Codeurs en Liberté](#).
Development of the French open data platform transport.data.gouv.fr for beta.gouv.fr.
- Oct 2017 – **Software Engineer**, QWANT RESEARCH, Paris.
Nov 2018 Creation of Qwant Maps, an [open source](#) map service for [Qwant](#), a French search engine focused on respecting privacy.
Design of a scalable vector tile architecture and development of a worldwide geographic search engine.
Core developer on:
◦ [mimirsbrunn](#): worldwide geographic search engine (geocoder)
◦ [cosmogony](#): tool to process geographic regions
- Nov 2013 – **Software Engineer**, KISIO DIGITAL, Paris.
Sep 2017 Software engineer in the operations research team in charge of [Navitia](#).
Navitia is a [opensource](#) traveler information software providing features like multi-modal journeys, timetables, and isochrones. It is an API build with micro-service components written in C++, python and rust and can handle real-time data.
Navitia's core feature, the journey planning, uses various algorithms as Djisktra's and a custom version of [RAPTOR](#), a multi objective dynamic programming algorithm mixed with branch and bound.
- Oct 2007 – **Optimization Engineer**, EURODECISION, Paris.
Nov 2013 EURODECISION is a consulting firm specialized in Optimization.
Example of missions carried out:
◦ **Air France** Long term mission on:
- crew scheduling;
- architecture of the new yield management system and development of the cancellation forecasting module;
- model of the impacts of a flight program change on the income and optimization of the flight program.
◦ **ERDF**: Shortest path and vehicle routing implementation for the deployment of the Linky electric meter;
◦ **Tegaz**: Leading the development of an optimization engine to balance a gas network;
◦ **AAA Data**: Rule based engine to aggregate heterogeneous data sources.

Languages

French	Native speaker
English	Fluent

Daily used at work. 7.5/9 "good user" at the IELTS exam.

Education

- 2003 – 2007 **École des Mines de Nantes**, *Computer science and operations research*.
2002 – 2003 **Classe Préparatoire aux Grandes Ecoles**, *Lycée Claude Bernard, Paris*.