

## — Work experience

### Amadeus – Nice, France – Permanent contract

#### 2021 – Now **Principal Engineer, Lead Data Scientist**

- Provide technical expertise on data across 15 agile teams working on Amadeus flight search engine, which powers 46% of travel agency bookings worldwide with clients such as Expedia or Kayak.com.
  - Responsible for production models and components which handle thousands of query per second while generating 10 billion data points a day.
  - Coordinate the work of a team which grew from 5 to 10 data scientists and engineers.
  - Contribute significantly to internal codebase, architecture, studies and CI/CD.
- Python, Spark, large scale data processing and analytics*

#### 2019 – 2021 **Software Engineer, Data Scientist**

- Reduced Amadeus flight search engine **response time by 55%** and hardware cost by **17%** while improving conversion via a new search architecture leveraging new, dedicated, data feeds.
  - Designed and enhanced this new architecture using prototyping, incremental improvements, benchmarks and machine learning.
  - Supported the implementation and rollout of this new architecture via shadow testing and A/B testing.
- Python, Spark, large scale data processing, prescriptive analytics, optimization*

#### 2016 – 2019 **Software Engineer, Data Engineer**

- Built a web-based business intelligence platform providing interactive analytics based on **120 billion flights** to internal and external customers.
- Python, Java, Spark, Elasticsearch, Django, Docker, AWS.*
- Performed near real-time anomaly detection on **200 million daily logs** of the company's core services. Time series prediction on streams with anomalies exposed to external customers with a web UI.
- Java, Machine learning, Elasticsearch, Microservices, Angular.*
- Numerous ad-hoc data analytics pipelines.
- Scala, Python, Spark*

#### Feb 2016 – **Data Mining Intern**

Aug 2016

- Developed a usage analysis platform for the world's most widely-used online airline booking engine used by 128 airlines.
  - Parsed, analyzed, enriched and aggregated **500 millions access logs**.
  - Exposed information in a web UI used by **50 teams** internally.
- PHP, Elasticsearch, Laravel, Angular, Data analysis, Rule engine*

## Sprint Junior-Entreprise – Évry, France – Freelance – 4 consecutive missions

2014 – 2016 **Web Developer**

- Developed an order management website for a large French telecommunications company and its main customer.

2015 **Hybrid Mobile Application Developer**

- Developed a mobile appointment scheduling application for small businesses.

## SAIO (startup) – Madrid, Spain – Arcueil, France – Internship then freelance

Jul 2014 – **Web Developer**

- Oct 2014
- Created a knowledge management interface for the company's semantic engine.

## — Open-source projects

2019 – Now **Pysparkling Top Contributor** – <https://github.com/pysparkling/pysparkling>

- Added **support of Spark SQL** to Pysparkling. Pysparkling is a pure Python implementation of the APIs of Spark, the large-scale distributed data computing framework. Its main goal is to fasten tests of Pyspark pipelines in real applications.
- Achieved **up to 22 times** faster execution compared to Pyspark on small to medium-sized datasets.

Top contributor – *Python*

2020 – Now **Python SQL Parser Developer** – <https://github.com/pysparkling/python-sql-parser>

- Implemented an ANTLR-based SQL parser which converts any SQL statement in a syntax tree python object.

Creator – *Python, Antlr (language recognition tool)*

2006 – 2011 **Creator of a toolbox for a game** – <https://github.com/tools4origins/tools4origins>

- Created a decision-support toolbox and a knowledge base for an online game. Data retrieved via a crawler and exposed in a web interface with interactive analytics and tools addressed to players. 1,000,000 page views by 32,000 users.

Creator – *PHP, JavaScript*

## — Skills

Technical Python, Spark, Elasticsearch, Java, Scala, Django, Nginx, Git, Bash, SQL, Docker, Distributed systems, Large scale data processing, Descriptive, predictive and prescriptive data analytics.

Certified Scale Agile Framework (SAFe) Architect and Practitioner (2021)

Languages French (Native), English (Fluent)

## — Education

2013 – 2016 **MSc in Computer Science** – Télécom SudParis – Mines-Télécom Institute, France

2011 – 2013 **Higher school preparatory classes MPSI/MP** – France