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# João P. C. Bertoldo

# Research Engineer at MINES ParisTech

## **Education**

## Paris-Dauphine - PSL University

2019 - 2020, Paris, France

Master IASD - MSc in Artificial Intelligence, Systems, Data.

Subjects: Machine Learning, Deep Learning, Optimization, Natural Language Processing (NLP), Image Analysis.

#### **MINES ParisTech - PSL University**

2017 - 2020, Paris, France

MSc in Executive Engineering with minor in Data Science.

Subjects: Software Engineering, Databases, Probability, Statistical Modeling, Operations Research.

#### Engineering School of São Carlos - University of São Paulo

2013 - 2020, Brazil

MSc equivalent degree in Mechatronics Engineering.

Obtained a 1-year scholarship for an international exchange at the University of Valenciennes (France).

Teaching assistant (6 mos.): conducted workshops on numerical analysis using MATLAB (github).

## **Professional Experiences**

#### Research Intern (5 mos.)/Engineer (current) - MINES ParisTech

2020-2021, Paris, France

- ·Works on 3D tomography image segmentation with convolutional neural networks (github).
- Stack: TensorFlow, Keras, ImageJ, Avizo, Python, Jupyter Lab.

## Research & Development Intern (5 mos.) - Mindsay

2020, Paris, France

- · Evaluated interpretability methods applied to NLP text classification models maintained by non-experts.
- Stack: Python, Streamlit, Lime (Ribeiro et al., 2016), Anchor (Ribeiro et al., 2018), SHAP (Lundberg et al., 2017).

#### Data Scientist Intern (7 mos.) - Datadog

2019, New York, USA

- · Analyzed and developed algorithms for time series, tag analysis, and knowledge graph.
- Stack: Python, Cassandra, GitHub, GitLab, Jupyter Notebook.

#### Software Engineer Intern (8 mos.) - Kelda Drilling Controls

2018, *Norway* 

- · Modeled and designed a time series annotation tool for supervised machine learning.
- Stack: Python, MongoDB, InfluxDB, JavaScript (React, Redux), Docker, Bash, Git.

#### Back-end Developer (3 mos.)/Data Scientist Intern (2 mos.) - Stone Co.

2017, Rio, Brazil

- $\bullet \ \text{Developed a .NET web Rest API for database access control and lectured about Design Patterns.}$
- Explored transactional data to predict client churn risk with decision trees-based methods.
- Stack: PostgreSQL, Jupyter, Pandas, Scikit-Learn, .NET (C#), MongoDB.

#### **Languages**

**English**: fluent, worked in English speaking companies for 1 year, obtained TOEFL 117/120 (2020).

French: fluent, read subjects in French for 3 years, worked in French organizations for 1 year.

Portuguese: native.

## **Projects & Interests**

Smart coffee machine (4 mos.): developed a web server in .NET (C#) and an Arduino controller (github).

Sunlight simulator (9 mos.): head of the project and developed a 3D motion simulator in Python (github).

**Pymdr:** implementation of "Mining data records in web pages", Liu et al. in Python (github).

Interests: skydiving, catacombs, podcasts (especially about politics), have been in 18 countries.