



# João P C Bertoldo

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## EDUCATION

<b>MSc in Artificial Intelligence, Systems, Data (IASD) <sup>(a)</sup></b> Paris-Dauphine – PSL University <i>Subjects: Machine Learning, Deep Learning, Optimization, Image Analysis.</i>	2019 – 2020 Paris, France
<b>MSc in Executive Engineering <sup>(b)</sup>   Minor: Data Science</b> MINES ParisTech - PSL University <i>Subjects: Software Engineering, Databases, Probability, Statistics, Operations Research.</i>	2017 – 2020 Paris, France
<b>Mechatronics Engineer (5-year degree) <sup>(c)</sup></b> University of São Paulo (USP) <i>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.</i>	2013 – 2020 São Carlos, Brazil

## WORK EXPERIENCE

<b>Research Intern (6 mos.) / Research Engineer (since Mar. 2021) <sup>(d)</sup></b> MINES ParisTech - PSL University <i>Working on 2D/3D X-ray tomography segmentation with U-Nets [unet, unet3d]. Talked at a seminar at MINES ParisTech, the Journée ISS France, and the week-course CVML 2021.</i>	since Sep. 2020 (6 mos.) Évry (Parisian region), France
<b>Research &amp; Development Intern <sup>(e)</sup></b> Mindsay <i>Evaluated explainability methods [lime, anchors, shap] on layperson-maintained NLP models (classification task).</i>	2020 (5 mos.) Paris, France
<b>Data Scientist Intern <sup>(f)</sup></b> Datadog <i>Analyzed and developed algorithms for time series, tag analysis, and a knowledge graph.</i>	2019 (7 mos.) New York, USA
<b>Software Engineer Intern <sup>(g)</sup></b> Kelda Drilling Controls <i>Modeled and designed a time series annotation tool for supervised machine learning.</i>	2018 – 2019 (8 mos.) Porsgrunn, Norway

## PROJECTS

**tomo2seg (??)** Tomography segmentation with deep learning (since Sep. 2020) [tomotoseg].  
**pymdr (??)** Implementation of liuMiningDataRecords2003 [liuMiningDataRecords2003] in Python (1 mo.) [pymdr].  
**Sunlight simulator (??)** Head of the project; developed a 3D motion simulator in Python (9 mos.) [sunlight].  
**Smart coffee machine (??)** Developed a web server in .NET (C#) and an Arduino controller (C++) (4 mos.) [smartCoffee].

## SKILLS & PERSONAL INTERESTS

**English (C1):** fluent, worked in English speaking companies for 1 year, obtained TOEFL 117/120 (2020).  
**French (C2):** fluent, read subjects in French for 3 years, worked in French organizations for 1 year.  
**Portuguese:** native.  
**Programming:**  
    **Python (??-??)** (NumPy, SciPy, Matplotlib, Pandas), MATLAB (??), Java (??), JavaScript (React, Redux) (??).  
    **Databases** MongoDB (??), InfluxDB (??), PostgreSQL (??).  
    **Deep learning** TensorFlow (??), Keras (??).  
    **Prototyping** Streamlit (??), Jupyter Lab (??-??), Jupyter Notebook (??-??).  
    **Others** ImageJ (??), Avizo (??), GitLab (??), Git (??-??), Bash (??-??), Docker (??).  
**Writing and content creation:** Google Suite, LaTeX, Markdown.  
**Personal interests:** skydiving, podcasts (especially about politics), has been in 18 countries.