

# CAIO ELMOR LANG

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## EXPERIENCES

### AI Research Intern

#### Fieldbox

April 2023 – September 2023

Bordeaux, France

Weakly supervised learning applied to industrial defect classification on images.

- Developed an R&D methodology, while keeping the business use case in mind. Kept a bibliographic study and built experimental protocols to test hypotheses and compare modeling strategies.
- Informed future product and sales decisions, reducing the need of labeling images on the clients' side.
- Developed a workflow with cutting-edge open source tools for data versioning and visualization.

**Python:** Pytorch Anomalib Plotly MLFlow DVC FiftyOne

**Other:** Technical Writing Presentation Git Subtree

### Fullstack Engineering Intern

#### Heex Technologies

April – August 2022

Paris, France

- Implemented testing of a web platform using Jest, achieving a 200% increase in code coverage, resulting in the reduction of average bug reports.
- Led big refactoring efforts to optimize a web platform, removing unused features, reducing loading times by up to 80%.
- Developed scalable React components and Node.js REST API endpoints. Helped with code review of two fellow interns.

**JS:** React Jest Adonis Next | **Other:** Go Git Agile SQL

### AI Engineering Intern

#### AnotherBrain

October 2021 – April 2022

Paris, France

- Developed the core product, using Deep Generative Neural Networks for quality control, in a team of 7 Engineers.
- Developed an internal EDA tool, decreasing friction to collect, clean and visualize experiment results. Collected user feedback and turned the MVP into an internal tool that was adopted by two teams in AB.
- Investigated the trade-off between image resolution and training time, informing future business and product decisions.

**Python:** Pytorch Docker ClearML Streamlit Plotly

**Other:** Git Agile

### Research Intern

#### IRCAM - Analysis/Synthesis team

May – August 2021

Paris, France

- Arranged, pre-processed and analyzed a new database with vocal performances in two languages (EN/FR).
- Benchmarked voice separation algorithms based on Deep Learning, supporting the work of a PhD candidate.

**Python:** TensorFlow Conda Librosa Pysndfile | **Other:** Bash

### Internship

#### Electric Dreams / EDG

February 2018 – March 2019

São José dos Campos, Brazil

- Developed an Augmented Reality app for an e-Bike prototype.
- Developed (UI + software) an Android app to communicate with an e-Bike prototype.

**Java:** Android | **Unity:** AR C#

**Softskills:** Communication Project Management | **Software:** Adobe Suite

## EDUCATION

### M2 | Artificial Intelligence & Data

#### Institut Polytechnique de Paris

2022 – 2023

Palaiseau, France

- Classes at École Polytechnique, Télécom Paris & ENSTA Paris
- Machine Learning, Deep Learning, Reinforcement Learning, NLP, Optimization, Computer Vision, GPU Programming, Big Data, Data Visualization, Symbolic AI

**Python:** Pytorch Keras TensorFlow

**DB:** SQL MongoDB Redis | **JS:** d3.js

Highlight: Text2Img Generation

### MSc Engineering | Double degree

#### ENSTA Paris

2020 – Ongoing (2023)

Palaiseau, France

- Artificial Intelligence track

Highlight: Small-scale Autonomous Vehicle

### BSc Engineering | Double degree

#### Unicamp

2016 – 2023

Campinas, Brazil

Highlight: Electric Formula Vehicle

## LANGUAGES

**Portuguese:** Native

**English:** Proficient C2

**French:** Proficient C2

**Spanish:** Advanced C1

**German:** Intermediate B2

## SKILLS

**Programming:** Python JavaScript Java  
C / C++ Julia Go MatLab HTML / CSS  
Bash

**Tools:** Git Docker Jenkins

**Data:** SQL Redis

**Softskills:** Communication Agile  
Presentation Design Leadership  
Project Management

## VOLUNTARY WORK

### Volunteer at Film Festival

#### Brésil en Mouvements Documentary Film Festival

2022

Paris, France

### Summer Camp Counselor

#### CIP

2016 – 2019

São Paulo, Brazil