# MARIANA CHAVES

### Statistician and data scientist

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**Union Series 20 Union Series 2 Unio** 

m-chaves.github.io

# **ABOUT ME**

I'm a **statistician and data scientist** with 7 years of working experience in data modeling, visualization, extraction, and transformation. Recently, I have been researching natural language processing techniques and text models in the context of fallacy detection and classification. I also worked in explainable and interpretable Al. In particular, with prototype-based interpretable neural networks and local interpretable model-agnostic explanations (LIME).

# **WORK EXPERIENCE**

# Research Engineer

### Inria, France

**2023 - Present** 

Research in natural language processing (NLP) focused on models and techniques that utilize argumentation and other text data derived features to identify fallacious arguments in social media and political debate contexts.

# Research internship

### **I3S and Inria. France**

**2022** 

Research on prototype-based interpretable neural networks, other text classification models and NLP techniques applied to the understanding of gender representation in visual media.

### Research internship

### Inria and Université Côte d'Azur, France

**2**021

Research on model agnostic interpretability methods in the ambit of images. More specifically, improving resampling process for local interpretable model-agnostic explanations (LIME).

### Data scientist

### Walmart Supply Chain Analytics USA

**2018 - 2020** 

Directed and developed data analysis projects. Main projects included an anomaly detection system, statistical sampling design, and consumption layer design.

#### Data analyst

# Walmart Supply Chain Analytics USA

**2017 - 2018** 

Data extraction, transformation, and visualization. Main projects included statistical process control techniques and KPI development.

### Data analyst

### **BAC Credomatic Regional Compliance Management, Costa Rica**

**2016** 

Developed money laundering detection models for five Central American countries.

# **EDUCATION**

MSc Data science and artificial intelligence

### Université Côte d'Azur (UCA), France

**2020 - 2022** 

A Honors Graduate (Mention Très Bien)

### **Bachelor in Statistics**

### University of Costa Rica (UCR), Costa Rica

**2013 - 2017** 

Honors Graduate

# **AWARDS**

Highest GPA among Statistics majors for three consecutive years: 2013, 2014, 2015.

University of Costa Rica (UCR)

Honorable Mention: Ninth highest score on Admission Exam 2012.
University of Costa Rica (UCR)

Honorable Mention: Highest score on Admission Exam 2012.
Technological Institute of Costa Rica

# **MAIN SKILLS**

(TEC)

Python R LaTeX SQL

# **LANGUAGES**

English - C1 Spanish - C2 (Native) Portuguese - C1 French - B2



# **PUBLICATIONS**

Pierpaolo Goffredo, Mariana Chaves, Serena Villata, and Elena Cabrio. 2023. Argument-based Detection and Classification of Fallacies in Political Debates. EMNLP.