MARIANA CHAVES

NLP Researcher | Data Scientist | Statistician

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ABOUT ME

I am a research engineer at CNRS and a member of the MARIANNE team at Inria, where I work on natural language processing (NLP) and argument mining applied to the context of political debates, press articles, and social media. In my 7 years of working experience, I have developed diverse projects involving statistics, data science, machine learning, and artificial intelligence. This includes applications in social media analysis, gender representation in media, explainable AI, supply chain logistics, and money laundering detection.

WORK EXPERIENCE

Research Engineer

CNRS and Inria, France

📅 2023 - Present

Conducted research in NLP and computational argumentation, focused on fallacy detection and argument mining within political debates and social media contexts. Key contributions include the creation and annotation of corpora, manipulation of transformer-based models, and developing graph-based representations of argument structures.

Research internship

I3S and Inria, France

📅 2022

Explored prototype-based interpretable neural networks, text classification models, and NLP techniques to analyze gender representation in visual media.

Research internship

Université Côte d'Azur and Inria, France

📅 2021

Researched model-agnostic interpretability methods for image classification models, with a focus on enhancing the resampling process for Local Interpretable Model-agnostic Explanations (LIME).

Data scientist

Walmart Supply Chain Analytics, Costa Rica

📅 2017 - 2020

Directed and developed data analysis projects. The main initiatives included anomaly detection systems, statistical sampling design, statistical process control techniques, and KPI development.

Data analyst

BAC Credomatic, Costa Rica

📅 2016

Developed a money laundering detection system based on bayesian decision trees models applied on banking transactional data.

LANGUAGES

Spanish - C2 (Native)
English - C1 (TOEFL iBT 109/120)
Portuguese - B2/C1
French - B2

EDUCATION

MSc Data Science and Artificial Intelligence

Université Côte d'Azur (UniCA), France

📅 2020 - 2022

🏅 Honors Graduate (*Mention Très Bien*).

Bachelor in Statistics

University of Costa Rica (UCR), Costa Rica

📅 2013 - 2017

🏅 Honors Graduate.

HONOURABLE MENTIONS

🎗 **Highest GPA among Statistics majors for three consecutive years: 2013, 2014, 2015.**
University of Costa Rica (UCR)

🎗 **Honorable Mention: 9th place (out of ≈33k) on National Admission Exam.**
University of Costa Rica (UCR) 2012-2013

🎗 **Honorable Mention: 1st place (out of ≈20k) on National Admission Exam.**
Technological Institute of Costa Rica (TEC) 2012-2013

MAIN SKILLS

Python   R   LaTeX   Git   SQL

PUBLICATIONS

Mariana Chaves, Elena Cabrio, Serena Villata. FALCON: A multi-label graph-based dataset for fallacy classification in the COVID-19 infodemic. SAC 2025. hal-04834405

Pierpaolo Goffredo, **Mariana Chaves**, Serena Villata, and Elena Cabrio. Argument-based Detection and Classification of Fallacies in Political Debates. EMNLP 2023. hal-04260221