



Daniela F. MILÓN-FLORES

AI Researcher in Online Child Protection & Harm Detection

Machine Learning & NLP for Risk Identification

My Contact

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in milon-flores
🌐 Homepage

Technical Skills

Artificial Intelligence

Machine Learning, Natural Language Processing, Deep Learning, Large Language Models

Programming

Python, R, C++

Frameworks & Tools

TensorFlow, Keras, Scikit-learn, GraphDB, Protégé

Semantic Web Technologies

Ontologies, Knowledge Graphs, RDF, OWL, SPARQL

Core Competencies

- Online Grooming & Child Protection AI
- Behavioral Pattern Modeling in Digital Interactions
- Natural Language Processing for Risk Detection
- Machine Learning Systems for Early Warning Signals

Languages

- Spanish — Native
- Portuguese — Fluent

Research Profile

I am an AI researcher specializing in the detection of harmful behaviors in online environments. My work focuses on developing machine learning systems for risk identification, particularly in the context of online grooming and child protection. I combine natural language processing, behavioral pattern modeling, and statistical learning techniques to design systems capable of detecting emerging risk signals under limited contextual information in high-stakes digital settings. In parallel, my doctoral research strengthened my ability to design robust and scalable AI systems capable of integrating heterogeneous data sources in complex environments.

Research Experience

M.Sc. Researcher — University of São Paulo

2020–2022

Developed an early detection framework for online grooming in conversational data

- Identified and modeled behavioral features acting as risk patterns in online interactions.
- Applied NLP techniques to extract emotional, linguistic, and interaction-based signals from unstructured conversational data.
- Implemented machine learning models for early-stage classification of grooming behaviors.
- Designed a trigger-based detection mechanism capable of raising alerts under limited contextual information.
- Assessed model performance using precision, recall, and F1-score to measure early detection effectiveness.
- Published findings in the peer-reviewed journal *Knowledge-Based Systems*.
- Contributed to public dissemination of research results through Brazilian media coverage.

Doctoral Researcher — Université Grenoble Alpes

2022–2025

Developed scalable machine learning infrastructures integrating structured data systems for complex data analysis.

- Applied machine learning techniques for time-series analysis, including change detection in long-term data.
- Designed structured knowledge models to organize large-scale heterogeneous datasets.

- English — Fluent
- French — Intermediate

Professional Experience

- Interdisciplinary collaboration
- Ethical handling of sensitive digital content
- Research supervision & mentoring
- Technical communication across disciplines

Education

- **PhD in Computer Science**
Université Grenoble Alpes, France (2022–2025)
- **MSc in Computer Science**
University of São Paulo (USP), Brazil (2020–2022)
- **BSc in Computer Science**
Universidad Católica San Pablo, Peru (2014–2019)

References

- **Prof. Robson Ferreira Cordeiro**
University of São Paulo
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- **Prof. Jérôme Gensel**
Université Grenoble Alpes
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- **Dr. Camille Bernard**
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- Built scalable data pipelines integrating machine learning with structured data systems.
- Integrated multiple heterogeneous data sources into unified analytical workflows.
- Published research in international venues.

Relevant Publications

- **Milon-Flores, D. F.**, Cordeiro, R. L. F., et al. (2022). *How to take advantage of behavioral features for the early detection of grooming in online conversations*. Knowledge-Based Systems, 240, 108017.
- **Milon-Flores, D. F.**, et al. (2019). *Generating audiovisual summaries from literary works using emotion analysis*. 32nd SIBGRAPI Conference on Graphics, Patterns and Images (IEEE).
- Lippolis, A. S., Klironomos, A., **Milon-Flores, D. F.**, et al. (2023). *Enhancing Entity Alignment Between Wikidata and ArtGraph Using LLMs*. SWODCH 2023, CEUR-WS.
- **Milon-Flores, D. F.**, Bernard, C., Gensel, J., Giuliani, G. (2025). *Semantic Description of Satellite Earth Observation Time Series*. SAGEO Conference.
- **Milon-Flores, D. F.**, Bernard, C., Gensel, J., Giuliani, G., Chatenoux, B., Dao, H. (2024). *Towards Semantic Enrichment of Earth Observation Data: The LEODS Framework*. AGILE Conference on Geographic Information Science.

Awards & Academic Recognition

- **Research Dissemination in National Media**, Brazil (2022)
Algorithm for monitoring online sexual harassment of children featured in:
 - University of São Paulo Newsletter
 - Jornal da Gazeta (online interview)
 - Globo Newsletter
- **Best Paper Presentation Award**, W2GIS Conference (2024)
Awarded for best presentation at the Web and Wireless Geographical Information Systems (W2GIS) Conference.
- **Best Poster Presentation Award**, International Semantic Web Summer School (2023)
- **Best BSc Thesis Award in Computer Science**, Universidad Católica San Pablo (2019)