



UNIVERSIDADE FEDERAL DE MINAS GERAIS



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To Whom It May Concern,

I am honored to recommend **Dra. Francielle Vargas** in my capacity as her Ph.D. co-supervisor, having supervised her thesis, “Socially Responsible and Explainable Automated Fact-Checking and Hate Speech Detection”, defended in 2024. I have had the privilege of experiencing her outstanding combination of rigorous scientific research, technical innovation, and profound social commitment.

Francielle’s research lies at the intersection of Natural Language Processing (NLP), Responsible AI, and Computational Social Science, with a particular focus on combating online hate speech, disinformation, and promoting social inclusion. Her work demonstrates an exceptional ability to translate state-of-the-art AI techniques into tools with tangible societal impact. Notably, she has developed benchmark datasets such as HateBR, HateBRXplain, MFTCXplain, HausaHate, Factual, and the platform #NoHateBrazil for explainable hate speech detection and automated fact-checking, all of which have been published in top-tier NLP conferences as LREC, EMNLP, NAACL, and RANLP. **These resources address disinformation and hate speech in underrepresented communities in Latin America and West Africa, are publicly available, and are widely used by the research community.** In total, **15 publications have been published and presented at top-tier international NLP venues such as LREC, EMNLP, NAACL, RANLP and Natural Language Processing journal.** Her contributions are not only scientifically rigorous but also directly tackle pressing challenges in online safety, equitable access to information, and protection of vulnerable populations.

Her technical brilliance is complemented by innovative methodology. For example, her development of **Supervised Rational Attention (SRA)**, **Social Stereotype Analysis (SSA)**, **Contextual BoW with Feature Saliency for Explainable Hate Speech Detection** and **Sentence-Level Factual Reasoning (SELFAR)** models combines supervised attention learning, rationales, counterfactual explanations, evidence-based information retrieval, and bias mitigation. These models advance both the scientific understanding of AI explainability and its practical application in contexts that demand fairness, accountability, and social impact.



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Her excellence is further demonstrated through multiple national and international awards, grants, and nominations, including the **Google Latin America Research Award (LARA)** and the **Maria Carolina Monard Best Thesis Award in Artificial Intelligence**, both recognizing not only scientific achievement but also meaningful societal contributions. She also received highly competitive Diversity & Inclusion grants from the Association for Computational Linguistics (ACL) in 2024, one for EMNLP and another for NAACL, awarded to individuals who have shown exceptional commitment to fostering equity and inclusion within the NLP community. Additionally, she was nominated for two national awards: the Computer Society Thesis and Dissertation Award (SBC-CTD) and the Brazilian Symposium on Multimedia and the Web Thesis and Dissertation Award (WebMedia-CTD), further underscoring her scientific excellence alongside her societal impact.

Beyond research, she has consistently demonstrated leadership and collaborative spirit. She co-organized international workshops such as the **Workshop on Online Abuse and Harms (WOAH)** at the 63rd Annual Meeting of the Association for Computational Linguistics (ACL 2025), and **Explainable Deep Neural Networks for Responsible AI (DeepXplain)** at the International Joint Conference on Neural Networks (IJCNN 2025). In addition, **she led interdisciplinary collaborations involving researchers from 10 countries across 5 continents**. Her projects are designed not only to advance science but also to empower communities, improve access to knowledge, and support underrepresented populations in the Global South.

In sum, Francielle Vargas exemplifies the rare combination of intellectual excellence, innovation, and commitment to social good. Her work embodies rigorous computer science focused on AI with meaningful real-world impact, and I am confident that her contributions will continue to shape both AI research and its responsible application for society. I recommend her without reservation.

Please feel free to contact me for any further information.

Sincerely,

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