# Francielle Vargas

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#### Education

PhD, Computer Science and Computational Mathematics

University of São Paulo

2019 - current

 $MSc,\ Computer\ Science\ and\ Computational\ Mathematics$ 

University of São Paulo

Thesis: Semantic clustering of aspects for opinion mining. see

2015 - 2017

BA, Linguistics

Federal University of Minas Gerais

2010 - 2014

BSc, Information Systems

Pontifical Catholic University of Minas Gerais

2006 - 2009

#### Research Groups

LOCUS - Social Computing Lab, 2021/2023

Computer Science Department, Federal University of Minas Gerais, Brazil.

NILC - Interinstitutional Center for Computational Linguistics, 2015/2023

Institute of Mathematical and Computer Sciences, University of São Paulo, Brazil.

# Organizing and Program Committee

## **Program Committee**

- ACL: Discourse and Pragmatics Track (2023)
- EMNLP: Discourse and Pragmatics Track (2022); Computational Social Science and Cultural Analytics Track (2022); NLP Applications Track (2022); Resources and Evaluation Track (2022);
- NAACL: NAACL Student Research Workshop (2022).
- ICWSM: 17th International AAAI Conference on Web and Social Media (2023).
- **CODI**: 4th Workshop on Computational Approaches to Discourse (ACL 2023); 3rd Workshop on Computational Approaches to Discourse (COLING 2022)
- ARGMINING: 9th Workshop on Argument Mining (COLING 2022); 22th Workshop on Computational Models of Natural Argument COMMA 2022); 1st Workshop on Argumentation & Machine Learning (COMMA 2022).
- WOAH: 7th Workshop on Online Abuse and Harms (acl 2023); 6th Workshop on Online Abuse and Harms (NAACL-HLT 2022).
- CASE: 6th International Workshop Challenges and Applications of Automated Extraction of Socio-political Events from Text (RANLP 2022); 5th International Workshop Challenges and Applications of Automated Extraction of Socio-political Events from Text (EMNLP 2022); 4th International Workshop Challenges and Applications of Automated Extraction of Socio-political Events from Text (ACL-IJCNLP 2021).

• SoCal NLP: 5th Southern California Natural Language Processing Symposium. see

#### **Organizing Committee**

- 1. Data(set) Co-chair. ICWSM 2023. see
- 2. Accessibility Chair. ICWSM 2022. see
- 3. Diversity, Equity, and Inclusion Chair. ICWSM 2021. see
- 4. Steering Committee. 6th International Workshop Challenges and Applications of Automated Extraction of Socio-political Events from Text. (RANLP 2023). see
- 5. Steering Committee. 5th International Workshop Challenges and Applications of Automated Extraction of Socio-political Events from Text. (EMNLP 2022). see

## Selected Publications

#### **Journals**

Vargas, F.A., Pardo, T.A.S., Benevenuto, F., Schmeisser, W., Zaczynska, Z., Rabinovich, Z. (2022). Discourse Annotation Guideline for Low-Resource Languages. *Natural Language Engineering Journal*, pp. 1-56. under review

Vargas, F.A., Carvalho, I., Góes, F.R., Pardo, T.A.S and Benevenuto, F. (2022). Contextual-aware and data expert resources for Brazilian Portuguese hate speech detection. *Natural Language Engineering Journal*, pp. 1-25. under review

## Conferences

Vargas, F., Góes, F.R., Pardo, T.A.S., Benevenuto, F. (2023). Factual or Biased? Predicting Sentence-Level Factuality and Bias of News. 61st Annual Meeting of the Association for Computational Linguistics (ACL). pp.1-5. Toronto, Canada. under review

Vargas, F., Guimarães, S., Lamine, M. D., Benevenuto, F. (2023). TEAR: A Dataset of Hate Speech Comments on West African Facebook Pages. 17th International AAAI Conference on Web and Social Media (ICWSM). pp.1-8. Limassol, Cyprus. under review

Vargas, F.A., D'Alessandro, J., Rabinovich, Z., Benevenuto, F., Pardo, T.A.S (2022). Rhetorical structure approach online deception detection: A survey. 13th Conference on Language Resources and Evaluation (LREC), pp. 5906-5915. Marseille, France. see

Vargas, F.A., Carvalho, I., Góes, F.R., Pardo, T.A.S and Benevenuto, F. (2022). HateBR: A expert annotated corpus of Brazilian Instagram comments for offensive language and hate speech detection. 13th Conference on Language Resources and Evaluation (LREC), pp. 7174–7183. Marseille, France. see

Machado, M., Pardo, T.A.S., Ruiz, E. E. S., Di Felippo, A., Vargas, F.A. (2022). Implicit aspect clues in Portuguese texts: analysis and categorization. 15th International Conference on Computational Processing of Portuguese (PROPOR), pp. 68–78. Fortaleza, Brazil. see

Vargas, F.A. Benevenuto, F., Pardo, T.A.S (2021). Towards discourse-aware models for multilingual fake news detection. *International Conference Recent Advances in Natural Language Processing - Deep Learning for Natural Language Processing Methods and Applications - Student Research Workshop (RANLP)*, pp. 210-218. Held Online. see

Vargas, F.A., Góes, F.R., Carvalho, I., Benevenuto, F. and Pardo, T.A.S. (2021). Contextual-lexicon approach for abusive language detection. *International Conference Recent Advances* 

in Natural Language Processing - Deep Learning for Natural Language Processing Methods and Applications (RANLP), pp. 1442-1451. Held Online. see

Vargas, F.A., Santos, R. R. S. and Rocha, P. R. (2020) Identifying fine-grained opinion and classifying polarity on coronavirus pandemic. *9th Brazilian Conference on Intelligent Systems (BRACIS)*, pp. 511-520. Rio Grande, Brazil. see

Vargas, F.A. and Pardo, T.A.S. (2018). Aspect clustering methods for sentiment analysis. 13th International Conference on Computational Processing of Portuguese (PROPOR), pp. 365-374. Canela, Brazil. see

#### Workshops

Nurse, J. R., Vargas, F. A., Hassan, N, Wang, D., Andriotis, P., Ghenai, A., Jaidka, K., Mustafaraj, E., Joseph, K., Welles, B. F. (2021) Towards a diverse, inclusive, accessible and equitable AAAI international conference on web and social media (ICWSM). Workshop Proceedings of the 15th International AAAI Conference on Web and Social Media (ICWSM), pages 1-14. Held Online. see

Vargas, F.A. and Pardo, T.A.S (2020). Linguistic rules for fine-grained opinion extraction. Workshop Proceedings of the 14th International AAAI Conference on Web and Social Media (ICWSM), pp. 1-6. Held Online. see

Pardo, T.A.S., Baptista, J., Duran, M.S., Nunes, M.G.V., Nóbrega, F.A.A., Aluísio, S.M., Di Felippo, A., Seno, E.R.M., Silva, R.R., Anchiêta, R.T., Brum, H.B., Dias, M.S., Martins, R.S.O., Maziero, E.G., Souza, J.W.C., Vargas, F.A. (2017). The coreference annotation of the CSTNews corpus. In the 2nd Workshop on Evaluation of Human Language Technologies for Iberian Languages. Workshop Proceedings of the 33th Conference of the Spanish Society for Natural Language Processing (SEPLN). 102-112. Murcia, Spain. see

## Previous Positions

# **Academic Positions**

2019/2022: Graduate Research Assistant - Dept. of Computer Science.

University of São Paulo. see

2021/2021:Graduate Teaching Assistant in Neural Networks and Deep Learning.

University of São Paulo. see

2020/2020:Graduate Teaching Assistant - Computing Theory and Compilers.

University of São Paulo. see

2016/2016: Graduate Teaching Assistant in Computer Seminars.

University of São Paulo. see.

2015/2017: Graduate Research Assistant - Dept. of Computer Science.

University of São Paulo. see

2011/2014: Undergraduate Research Assistant - Dept. of Linguistics.

Federal University of Minas Gerais. see

## **Industry Positions**

2021/2023 Research Fellow. Sinch.

2021/2022 Data Scientist. Webex-Cisco via Telus International.

2014/2015: System Analyst. Unisys Corporation. 2009/2010: System Analyst. Grupo Barcelos.

# Conference participation

2022: 13th International Conference on Language Resources and Evaluation (LREC). see

2021: 16th Recent Advances in Natural Language Processing (RANLP). see

	2021: 15th International AAAI Conference on Web and Social Media (ICWSM) . see 2020: The 2022 Empirical Methods in Natural Language Processing (EMNLP). see 2020: 9th Brazilian Conference on Intelligent Systems (BRACIS). see 2020: 12th International Conference on Language Resources and Evaluation (LREC). see 2017: 9th Brazilian School on Computational Linguistics (EBRALC). see 2013: 29th Congresso Latino Americano de Sociologia: Crisis e Emergencias Sociales en America Latina (ALAS). see
Mentoring	2020: Computer Science Undergraduate Student, Lucas Sobral Fontes Cardoso: Title: Web resources for an aspect identification and clustering tool in fine-grained opinion mining. University of São Paulo. certificate
Awards received	2013: Best Undergraduate Student Award, Federal University of Minas Gerais. see 2013: Best Undergraduate Project Award, Federal University of Minas Gerais. see 2012: Best Undergraduate Student Award, Federal University of Minas Gerais. see
Short Courses	2019: Introduction on the Stars - Astrophysics. certificate
Hackathon, Datathon and Summer Schools	<ul> <li>The 2022 IEEE Spoken Language Technology Workshop Hackathon, Qatar, 2022. see</li> <li>2nd Advanced Language Processing School, Université Grenoble Alpes, France, 2022. see</li> <li>1st Datathon and Hackathon "Antisemitism on Social Media", Indiana University Bloomington, NLP Lab, United States, 2020. see</li> <li>10th Lisbon Machine Learning School, Portugal, 2020. see</li> <li>4th Brazilian Advanced School in Big Data Analysis, University of São Paulo, 2020. see</li> <li>22th Computer Science Summer School, University of Sao Paulo, 2019. certificate</li> <li>4th Computer Science Summer School, Federal University of Minas Gerais, 2015. see</li> <li>10th Linguistics Summer School, Federal University of Minas Gerais, 2011. see</li> </ul>

# Participation in examination committees

2021: Computer Science Graduate Course. Unitersity of São Paulo. Vivian Vieira. Aprendendo sobre veracidade de informações: Desenvolvimento e avaliação de curso EAD que aplica método científico na análise de notícias. certificate

2021: Computer Science Graduate Course. Unitersity of São Paulo. Laudeir José Lopes de Oliveira. Explorando o pensamento computacional com aprendizado de máquina: Elaboração de um material didático para uma oficinaintrodutória. certificate

2021: Computer Science Undergraduate Course. Unitersity of São Paulo. Lucas Silva Loureiro. Sistema de Recomendação de Livros. certificate

2020: Computer Science Undergraduate Course. Unitersity of São Paulo. Luana Balador Belisario. Análise discursiva aplicada à mineração de opinião: classificação de subjetividade para a língua portuguesa. see

2020: **Computer Science Undergraduate Course**. Unitersity of São Paulo. Paulo André Pimenta Aragão. *Revisão Sistemática da Literatura sobre Software Educativos para Ensino de Engenharia de Software*. see

2020: Computer Science Undergraduate Course. Unitersity of São Paulo. Tarcisio Ladeia de Oliveira. Mapeamento de Ambientes Externos com o Uso de Drones. see

2020: Computer Science Undergraduate Course. Unitersity of São Paulo. Rafael Farias Pinho. Planejamento de rotas para VANTs com desvio de obstáculos e incertezas. see

2019: 27th USP International Symposium on Scientific and Technological Initiation. Member of the examination committee of the undergraduate projects, certificate

Talks as an invited speaker

2023: Day of Women and Girls in Science, Sinch Latam. see

2018: Natural Language Processing and Data Science, University Center Methodist Izabela

Hendrix. see

2016: Opinion Mining, University of Sao Paulo.see

Technical-Scientific Resources

Technical-Scientific OpCluster: Fine-grained opinion extraction and clustering tool (web system).

NoHateBrazil: A fairness-aware offensive comments analysis web system (web System)

**OPCovidBR**: Aspect-based sentiment analysis dataset of Covid-19 Tweets (dataset). **AspectPRO**: Aspect-based annotated corpus of web consumer reviews (dataset).

 ${\bf Hate BR} : {\bf Large-scale \ abusive \ language \ dataset \ of \ Brazilian \ Instagram \ comments \ ({\bf dataset}).}$ 

Deceiver: Multilingual discourse-annotated corpus of fake and truth news (dataset).

FactNews: Sentence-level annotated dataset to predict factually and media bias (dataset).

PRO: Taxonomies for aspect-based sentiment analysis in Portuguese (lexicon).

MOL: Multilingual offensive lexicon (lexicon).

Recommendation Letters  ${\bf Prof.\ Dr.\ Fabricio\ Benevenuto.\ \it Computer\ \it Science\ \it Department,\ \it Federal\ \it University\ of\ \it Computer\ \it Science\ \it Department,\ \it Federal\ \it University\ of\ \it Computer\ \it Science\ \it Department\ \it Science\ \it Department\ \it Science\ \it Computer\ \it Science\ \it Department\ \it Computer\ \it Computer\$ 

Minas Gerais. letter

Dra. Norah Abokhodair. Microsoft Research. letter

 ${\bf Prof.~Dra.~Roseli~Romero.~} {\it Institute~of~Mathematics~and~Computer~Sciences,~University}$ 

of São Paulo. letter

Prof. Dr. Carlos Ramisch. Laboratoire d'Informatique et Systèmes – LIS – UMR CNRS

7020 - Aix Marseille Université. letter

Languages

Python, SQL, RDF(s), OWL, XML, JSON, Unix/Bash.