PABLO BADILLA TORREALBA

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EDUCATION

University of Chile, Santiago, Chile *2013 - 2021*
Department of Computer Sciences
Master's Degree in Computer Sciences. Graduated with maximum distinction.

University of Chile, Santiago, Chile *2013 - 2018*
Department of Computer Sciences
Bachelor's Degree in Engineering Sciences, mention in Computer Science. Graduated with maximum distinction.

PROJECTS

Word Embedding Fairness Evaluation Framework (WEFE)
My thesis project was focused on the develop of a standardized framework for measuring bias in Word Embeddings. It formally defines what a bias metric should be and mechanisms to compare them. It also includes a case study where we compared different pre-trained embeddings using different metrics and different bias criteria (gender, ethnicity and religion).

Implementation of WEFE
I also work on the implementation of WEFE as an open source library in Python. It should meet good implementation criteria such as high test coverage, documentation and manual of how to contribute.
The documentation can be found at the following link: `https://wefe.readthedocs.io`

WORK EXPERIENCE

National Center for Artificial Intelligence - CENIA **January 2022 - Ongoing**
Machine Learning Engineer
· Development team.

Master of Data Science, University of Chile, Santiago **March 2021 - June 2022**
Part Time Lecturer
· Data Science Laboratory Subject.

Independent AI and Software Consultant **January 2021 - Janury 2022**
· Business project development.

Department of Computer Sciences, University of Chile, Santiago **March 2020 -August 2022**
Part Time Lecturer
· Data Management and Extraction in Python and Machine Learning Subjects of the Continuing Education and Training Program.

Kwiyx SPA, Santiago **May 2020 - January 2021**
Software Engineer
· Design and implementation of several software projects.

Accion Circular, Santiago   April 2019 - July 2019
Full stack Developer

· Design and implementation of software for managing recyclable waste collection.

University Of Chile, Santiago   December 2017 - July 2020
Teaching Assistants

· In the subjects: Computational Tools, Introduction to Programming, Data Management, Multi-media Information Retrieval, Software Engineering, and Natural Language Processing.

TECHNICAL STRENGTHS

Data Analysis and Machine Learning	Python, Scikit-learn, Gensim, Pandas, Pytorch, MLFlow, Optuna, Kedro
Software Development	Python, JavaScript, React, Vue, Django
Software & Tools	Office, Latex

PUBLICATIONS

WEFE: The Word Embeddings Fairness Evaluation Framework

· Pablo Badilla, Felipe Bravo-Marquez, and Jorge Perez. WEFE: The word embeddings fairness evaluation framework. In Proceedings of the 29th International Joint Conference on Artificial Intelligence and the 17th Pacific Rim International Conference on Artificial Intelligence (IJCAI-PRICAI 2020), 2020.

WEFE: A Python Library for Measuring and Mitigating Bias in Word Embeddings

· Pablo Badilla, Felipe Bravo-Marquez, Jorge Pérez, María José Zambrano. Draft submitted to Journal of Machine Learning Research open source track. Awaiting for review.

ACHIEVEMENTS

Co-guide professor of María José Zambrano's undergraduate thesis, Computer Department Sciences of the University of Chile.

Outstanding student award granted by the Computer Department Sciences of the University of Chile. Years 2016 and 2018.

Third place in the Microsoft College Code Competition 2018.

Secondary Reviewer in The Joint Conference of the 59th Annual Meeting of the Association for Computational Linguistics and the 11th International Joint Conference on Natural Language Processing (ACL-IJCNLP 2021)