Juan Vásquez

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Employement

Beet Consulting June 2018 – January 2021
Data Consultant *Mexico City, Mexico*

- Wrote all the necessary code for the data pre-processing, data analysis, and data visualizations requested by the clients.
- Presented slides to various executives in order to help them have a better understanding of their HR departments.

GMEC Consulting October 2014 – July 2016
Business Analyst *Mexico City, Mexico*

- Contributed to the creation of various presentations for clients.
- Researched relevant data for various projects.

Education

Applied Mathematics and Systems Research Institute (IIMAS) at UNAM Mexico City, Mexico
Master of Science in Computer Science - specialization in Artificial Intelligence *Aug. 2021 – Present*

Thesis: *A novel method for the visualization of acquired gender biases in LLMs during fine-tuning* (provisional)
Adviser: Dr. Gemma Bel Enguix

Universidad Iberoamericana Mexico City, Mexico
Bachelor of Science in Engineering Physics *Jan. 2015 – Dec. 2019*

Thesis: *Data mining: Searching for Chaos in Polynomial Ordinary Differential Equations*
Adviser: Prof. Salvador Carrillo Moreno

Peer-Reviewed Manuscripts

Juan Vásquez, Helena Gómez-Adorno, and Gemma Bel-Enguix. *Bert-based approach for sentiment analysis of spanish reviews from tripadvisor* Proceedings of the Third Workshop for Iberian Languages Evaluation Forum (IberLEF 2021), CEUR WS Proceedings. 2021.

Accepted papers - to be published soon

Gemma Bel-Enguix, Helena Gómez-Adorno, Karla Mendoza Grageda, Grigori Sidorov and Juan Vásquez. 2022. *#happiness in Twitter: What does it really represent?* Linguamatica (to be published on June 2022).

Juan Vásquez, Gemma Bel-Enguix, Scott-Thomas Andersen, Sergio-Luis Ojeda-Trueba. 2022. *HeteroCorpus: A Corpus for Heteronormative Language Detection.* In Proceedings of the The Workshop on Gender Bias in Natural Language Processing. Seattle, USA. North American Association for Computational Linguistics.

Gemma Bel-Enguix , Gerardo Sierra, Helena Gómez-Adorno, Juan-Manuel Torres-Moreno, Juan Vásquez and German Ortíz. 2022. *Overview of PARMEX at Iberlef 2022: Paraphrase Identification in Spanish shared task*, CEUR WS Proceedings. 2022.

Work in Progress

Juan Vásquez, Gemma Bel-Enguix, Scott-Thomas Andersen. *Detection of Online LGBTphobia in Mexican Spanish. 2022.*

Teaching Experience

Introduction to Natural Language Processing with Python Mexico City, Mexico
Faculty of Engineering at UNAM *September 2021 – June 2022*

- Created all the materials for the course.
- Presented each one of the fifteen sessions.
- Assisted the students through the course.

Other Professional Activities

ABIOGENESIS | Fundación Cisneros *January 2021 – August 2021*
Software Developer

- Planned, designed and worked on the computational aspects of the ABIOGENESIS project. The goal of this project was to digitalize a custom painting, detect and modify its components using a machine learning algorithm, and create a new digital image that could be shown in an art installation that explored the intersection between art and artificial intelligence.
- Supervised the manual annotation of an image dataset, in order to train a custom object detection model.
- Wrote code that performed object detection on the digitalized image created from the original painting. After the object detection, the objects changed their RGB values in order to simulate change in their physical properties.

Volunteer Experience

Plural Ibero | Universidad Iberoamericana *August 2017 – July 2018*

- Helped organize, conduct, and moderate various talks for the *human diversity week* - five days in which the University allotted the Organization a budget that allowed us to create, promote, and execute various events that would create consciousness of the particular struggles faced by the LGBT+ population.
- Organized and conducted a weekly queer theory reading group with the members of the student association. Each session I would propose a reading, and I would encourage discussions around it.

Technical Skills

Programming languages: Python (advanced), Java (intermediate), C++ (basic)
Libraries: pandas, NumPy, Matplotlib, TensorFlow, PyTorch, spaCy, openCV, nltk