Luis Norberto Zúñiga Morales, M.Sc.

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lzun

Employment History

Adjunct Professor. Department of Engineering Studies For Innovation, Universidad Iberoamericana, Mexico.

Graduate Instructor. Department of Continuous Education, Universidad Iberoamericana, Mexico.

2018 – 2020 **Technologic Advisor.** Analyst, writer, technology advisor, and social media analyst for esports organization Team Rankstar.

Data Science and Natural Language Processing Consultant. Freelance. Clients include Universidad Iberoamericana, Allerstand.

2010 – 2017 Private Tutor. Mathematics and coding.

Education

Ph.D., Universidad Iberoamericana, Mexico in Multimodal Sentiment Analysis. Thesis title: Multimodal Sentiment Analysis in Digital Social Networks.

2015 – 2017 M.Sc. Computer Science, Centro de Investigación en Computación, Mexico in Machine Learning.

Thesis title: Financial market analysis under the effect of information diffusion on social networks.

2010 – 2014 **B.Sc. Mathematical Engineering, Instituto Politécnico Nacional, Mexico**.

Thesis title: Herd effect on financial assets: stock price modeling with simulation techniques.

Teaching

Algorithms and Programming Workshop, Universidad Iberoamericana, Marketing, Administration, Global Businesses, Hospitality.

Selected Topics on Information Systems, Universidad Iberoamericana, Actuarial Sciences.

2022 – 2024 **Data Intelligence**, Universidad Iberoamericana, Actuarial Sciences.

Machine Learning, Universidad Iberoamericana, Actuarial Sciences.

Social Networks Analysis, Universidad Iberoamericana, Big Data & Data Analytics graduate program.

Technologic Trends, Universidad Iberoamericana, Marketing, Administration, Global Businesses, Hospitality.

Projects

Research Projects

2023 Phishing detection on emails.

Project aimed to build novel phishing detection models. NLP consultant.

8M on Twitter.

Social network analysis and data collector of 2023 International Women's Day movement on Twitter.

Projects (continued)

Human rights recommendations labeling automation.

Technical advisor.

■ Opinion mining for electoral preference modeling.

Part-time data collector.

2022 Mining in Latin America.

Project aimed to study the environmental impact of mining activities in Latin America. Part-time data collector.

2021 – 2022 **Mexico's Image**.

Project aimed to analyze the overseas image of Mexico by processing tweets and news headlines. Technical lead in charge of data gathering, data processing, and construction of learning models.

Personal Projects

iZMath. Open educational resources in Spanish, particularly Data Science.

Research Publications

Journal Articles

- L. N. Zúñiga-Morales, J. Á. González-Ordiano, J. E. Quiroz-Ibarra, and C. Villanueva Rivas, "Machine learning framework for country image analysis," *Journal of Computational Social Science*, 2024, ISSN: 2432-2725. ODI: 10.1007/s42001-023-00246-3.
- L. N. Zúniga-Morales, A. Zúniga-López, J. Villegas-Cortez, C. Avilés-Cruz, and F. Morales-Torres, "Análisis preliminar del sentimiento sobre la vacunación del COVID-19 en México," *Research in Computing Science*, vol. 150, no. 5, pp. 281–294, 2021, ISSN: 1870-4069.

Conference Proceedings

- L. Bustio-Martínez, V. Herrera-Semenets, J.-L. García-Mendoza, et al., "Towards automatic principles of persuasion detection using machine learning approach," in *Progress in Artificial Intelligence and Pattern Recognition*, Y. Hernández Heredia, V. Milián Núñez, and J. Ruiz Shulcloper, Eds., Cham: Springer Nature Switzerland, 2024, pp. 155–166, ISBN: 978-3-031-49552-6.
- L. N. Zúñiga-Morales, J. Á. González-Ordiano, J. Quiroz-Ibarra, and S. J. Simske, "Impact evaluation of multimodal information on sentiment analysis," in *Advances in Computational Intelligence*, O. Pichardo Lagunas, J. Martínez-Miranda, and B. Martínez Seis, Eds., Cham: Springer Nature Switzerland, 2022, pp. 18–29, ISBN: 978-3-031-19496-2.

Skills

Languages Strong reading, writing, listening, and speaking competencies for English. Strong reading and listening competencies for French.

Basic abilities for Japanese.

Coding Python, sql, ETeX, Matlab.

Software Tableau, Gephi, Orange, Microsoft Office.

Databases Mysql.

API Twitter, Reddit, New York Times, The Guardian, Youtube.

Skills (continued)

Machine/Deep Learning

Scikit-learn, Tensorflow, Pytorch.

Misc.

Academic research, teaching, training, consultation, educational content creation, social networks management.

Miscellaneous Experience

Workshops

2023

- Artificial intelligence for International Relations with an automated classification model. Conmemoración de los 40 años del programa de Licenciatura en Relaciones Internacionales y 25 años de la fundación del DEI. Universidad Iberoamericana Ciudad de México.
- Data collection and classification workshop for the Country Image Analytical Model. Construyendo el futuro de la inteligencia artificial. Universidad Iberoamericana Ciudad de México.

Awards and Achievements

Department Prize for Outstanding Teaching Performance. Universidad Iberoamericana.

Certifications

- Prevención de la violencia de género en el ámbito universitario 2023 Educación continua, Awarded by Diversipedia.
 - **SQL for Data Science**. Awarded by Coursera.
- Fundamentals of Accelerated Computing with CUDA Python. Awarded by NVIDIA Deep Learning Institute.
- Design Database MySQL. Awarded by IT Open Knowledge Center.
 - **Fundamentals of Web Design**. Awarded by IT Open Knowledge Center.

References

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