

Erick Miguel Díaz de León Muñoz, M. Sc

Doctoral Candidate in Geosciences

Department of Geosciences

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November 2025

Appointments

Tecnológico Nacional de México - Campus Conkal

Adjunct Professor

2021–2022

Taught undergraduate courses: Geographic Information Systems and Mathematical Models in Agriculture

Education

Universidad de Guadalajara

Bachelor of Science in Biology

2010–2015

Universidad Nacional Autónoma de México

Master of Science in Earth Sciences

2017–2019

Tübingen Universität

Doctor of Philosophy in Geosciences

2023–Present

Thesis

Díaz de León-Muñoz, Erick Miguel. 2019. “Clasificación Taxonómica de Elementos Postcraneales de Mamíferos (Órdenes Carnívora, Artiodactyla y Perissodactyla) Del Oligoceno Temprano de Oaxaca y Sus Implicaciones Paleobiológicas.” Master's Thesis, Universidad Nacional Autónoma de México.

Díaz de León-Muñoz, Erick Miguel. 2017. “Manual de Fotogrametría En Paleontología.” Undergraduate Thesis, Las Agujas, Zapopan, Jalisco, México: Universidad de Guadalajara.

Peer-Reviewed Articles

Díaz de León-Muñoz, E. Miguel, Romain Boman, and Gabriel S. Ferreira. 2025. “BFEX: A Toolbox for Finite Element Analysis With Fossils and Blender.” *Ecology and Evolution* 15 (3): e71093. <https://doi.org/10.1002/ece3.71093>.

Congress Proceedings

Díaz de León-Muñoz, Erick Miguel, and Gabriel S. Ferreira. 2025. "MUFIS: Muscle Fiber Simulator." In *Proceedings of the 6th Morphology Meeting*. Kiel, Germany: German Zoological Society, Section Morphology.

Díaz De León Muñoz, E. M., and D. Caballero Arango. 2025. "Where Is My Fossil: A Multiplatform Application to Explore the Fossil Record." In *Book of Abstracts of the 5th Palaeontological Virtual Congress*, edited by Evangelos Vlachos, Vicente D. Crespo, María Ríos Ibáñez, Arturo Gamonal, Eduardo Jiménez Hidalgo, Rosalía Guerrero-Arenas, Fernando Antonio M. Arnal, Aylén Allende Mosquera, and Javier González-Dionis, 171. Palaeontological Virtual Congress.

Díaz de León-Muñoz, E. M., G. Siliceo, and G. S. Ferreira. 2024. "Preliminary Results on the Biomechanics of Feeding Behavior in the Amphicyonid *Magericyon anceps*." In *PalAss Meeting 2024*.

Díaz de León-Muñoz, Erick Miguel. 2021. "A New Way of Visualizing Data from the Paleobiology Database [Presentation]." In *3rd Palaeontological Virtual Congress 2021*. Presented at the 3rd Palaeontological Virtual Congress.

Díaz de León-Muñoz, Erick Miguel. 2020. "3d Digital Photogrammetry: A Cheap Way to Preserve and Share Palaeontological Information." In *2nd Palaeontological Virtual Congress 2020*.

Díaz de León-Muñoz, Erick Miguel. 2016. "Fotogrametría y Paleontología: Creación de Réplicas Virtuales 3D." In *Memorias Del XVIII Simposio de Zoología*. Zapopan, Jalisco, México: Universidad de Guadalajara.

Professional Experience and Service

Museo Virtual Nacional

Founder, Webmaster and Director

2016–Present

3D modeling of fossils, diffusion and protection of the paleontological record of Mexico, development of informatic tools useful for students and researchers

Verificiencia

Founder Member

2018–Present

Science communication and fact-checking project

Tecnológico Nacional de México - Campus Conkal

Adjunct Professor

2021–2022

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Software Development

- 2024 **BlendMark** – *Blender Add-on* – Blender add-on to generate anatomical landmarks for morphometric analysis
- 2024 **Where is My Fossil?** – *Mobile and Web Application* – Flutter-based application connecting multiple paleontological databases (PBDB, iDigBio, Morphosource) for fossil occurrence visualization, species information, and community engagement
- 2024 **MyoGeneratorRemix** – *Blender Add-on for Muscle Reconstruction* – Advanced add-on for creating anatomically accurate volumetric muscle meshes using Bezier curve-based lofting. Implements automatic mesh generation with detailed CSV metrics export
- 2024 **BFEX - Blender FEA Exporter** – *Blender Add-on for Finite Element Analysis* – Add-on to prepare 3D models for biomechanical analysis using Fossils. Facilitates muscle attachment surface creation, force direction setup, and FEA parameter export
- 2025 **Specify7-plus** – *Browser Extension* – Chromium browser extension enhancing Specify 7 collection management system with productivity tools
- 2025 **Diario de emociones** – *Mobile Application* – Flutter-based mobile app for daily emotion tracking with mood journaling and data visualization features

Honors

- 2017 **National Graduate Studies Scholarship (Master's)** – *Consejo Nacional de Ciencia y Tecnología (CONACYT)* – Scholarship for master's studies in Mexico
- 2023 **Research Grants - Doctoral Programmes in Germany, 2023/24** – *Deutscher Akademischer Austauschdienst (DAAD)* – Scholarship for doctoral studies in Germany
- 2023 **Graduate Studies Abroad Scholarship** – *Secretaría de Ciencia, Humanidades, Tecnología e Innovación (SECIHTI)* – Scholarship for doctoral studies in Germany
- 2024 **Grant for workshop: Digital Methods in Palaeontology** – *Lapworth Museum, University of Birmingham and Palaeontological Association*
- 2024 **Annual Meeting Council Poster Prize** – *Paleontological Association* – Best Poster Presentation at Annual Meeting

Workshops and Courses Attended

2023

- Inducción a la docencia en línea** – *Universidad Abierta y a Distancia de México (UnADM)* – 40 hours course on online teaching methodologies
- 2024 **Digital Methods in Palaeontology** – *Lapworth Museum, University of Birmingham* – Advanced workshop on digital techniques for paleontological research
- 2024 **Geometric Morphometrics in R** – *PhD School of Science, University of Copenhagen* – Course on geometric morphometric analysis using R
- 2024 **R2 - Data projects with R and GitHub** – *Dr. Eberle Zentrum für digitale Kompetenzen, Eberhard Karls Universität Tübingen* – Course on data management and version control with R and GitHub

Certifications

- 2016 **Web Assistant** – *Carlos Slim Foundation*
- 2016 **Introduction to Web Development** – *Institute of International Economics*
- 2017 **Certificate of Reading Comprehension of the English Language** – *Center of Languages UNAM*
- 2020 **English Proulex University Diploma (PDU)** – *PROULEX-University of Guadalajara*
- 2020 **English Proulex Certificate (PC)** – *PROULEX-University of Guadalajara*
- 2021 **TOEFL IPT** – *Educational Testing Service* – 577 points
- 2021 **TOEFL iBT** – *Educational Testing Service* – 101 points
- 2021 **English Proulex Advanced Certificate (PCA)** – *PROULEX-University of Guadalajara*
- 2021 **English Proulex TOEFL Preparation Course** – *PROULEX-University of Guadalajara*
- 2021 **National Certification of Language Level (CENNI), Level 13** – *Secretariat of Public Education (Mexico)*