

Alberto Domínguez Horner

Data Engineer

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I am a Data Engineer with a strong background on AI. I also play the role of DevOps Engineer and administer a private repository for data ingestion and data management. The National Council for Humanities, Science and Technology granted me a research scholarship to pursue my Master's degree. I focused my research on Causal AI. After my undergraduate studies on Philosophy, I undertook a shift towards engineering, due to the conclusion that such is the best way I can contribute to society. I am convinced that humans, collectively, can become even smarter, and solve a lot of urgent problems (environmental, political, industrial, health problems, etc.), with an adequate use of technology and keeping in mind that there are some riddles that are better unraveled by including causality in our reasonings.

Industry Experience

- **Ventagium Data Consulting - Data Engineer** 2023 - present
 - DevOps Engineer: manage CI/CD for data management and data extraction private python projects.
 - Responsible for ETLs, and its associated cloud resources.
 - Develop Causal Analysis to deliver valuable insights to our clients.
 - Work with Azure (Azure SQL Databases, Storage Accounts or Data Lakes, Virtual Machines, Virtual Networks, Function Apps, etc.)
 - Work with Microsoft Fabric: Orchestrate entire solutions on Spark.
 - Work with Microsoft Power Platform: develop Power Apps and Power Automate flows.

Education

- **Universidad Nacional Autónoma de México (UNAM) - Master in Philosophy of Science** 2021 -2023
 - Thesis: "Machines that think on causes" (Máquinas que piensan causas)
 - Advisor: Dr. Francisco Hernández Quiroz (Faculty of Computer Science)
 - GPA: 10 on a scale of 10. Best graded in my generation.
 - Graduated with honors in June, 2024. Attended from 2021 to 2023.
- **Universidad Panamericana - Bachelor in Philosophy** 2015 - 2019
 - Graduated with honors in 2021. Attended from 2015 to 2019.
 - GPA: 9.6 on a scale of 10. Second best graded in my generation

Research Experience

- **Research Group on History of Philosophy and Mathematics (UNAM)** 2023-Present
 - Led by Dr. Carmen Martínez Adame. Most members are professors at the Faculty of Sciences of the Universidad Nacional Autónoma de México (UNAM).
- **Research Group on Causal Inference and Causal Discovery (INAOE)** 2023-Present
 - Led by Dr. Enrique Sucar and Dr. Julio César Muñoz, both are researchers at the National Institute of Astrophysics, Optics and Electronics.
- **CONAHCYT Research Scholarship at Universidad Nacional Autónoma de México** 2021-2023
 - Causal Inference research.
 - Presented my research to the computer science community in the workshop CaDis 2023, at the INAOE (National Institute of Astrophysics, Optics, and Electronics).

Technology, Environment and the Pursuit of Wisdom (Duke University)

2023

- Dr. Peter Casarella and Sr. Damien Marie Savino, Ph.D. led this one-week seminar at Duke University. The seminar was organized by the *Lumen Christi Institute*, and we addressed topics on the meaning of science and engineering particularly regarding environmental sustainability.

Research seminar on Logic, Epistemology and Ethics of AI

2020- 2022

- Led by Dr. Karen González Fernández, and organized at the Universidad Panamericana. It is an international and interdisciplinary seminar. I participated in the organization of the seminar.

Philosophical Perspectives on Judaism, Christianity and Islam

2017- 2019

- Led by Dr. Luis Xavier López-Farjeat, this was a research program that consisted in a weekly seminar, editorial proofreadings of research papers and books, and the organization of three conferences. My undergraduate thesis was part of this program. The members of the program presented their work at the *V Iberoamerican Philosophy Conference*.

Teaching Experience

Universidad Panamericana - Ethics Subject Teacher

2022 - 2023

Prepa UP - High School Ethics, Logic, and History of Art Subject Teacher

2019- 2021

Awards

- (2018) Second place at the XV International Logic Contest within the Masters category, organized by the Mexican Academy of Logic (AML)
- (2018) First Place at the *Foro Universitas* essay contest, organized by the Universidad Panamericana. The essay I presented is titled "The Common Horizon".
- (2017) First place at the XIV International Logic Contest within the Undergraduate category, organized by the Mexican Academy of Logic (AML)

Certifications

- (2024) DP-600 Microsoft Fabric Analytics Engineer Associate
- (2023) AZ-900 Microsoft Azure Fundamentals Certification
- (2022) Machine Learning *Stanford University* Online Certified Course by Andrew Ng

Publications

- "Book Review: *Privacy is Power* by Carissa Véliz", *Tópicos*, No. 66 (2023), May-August. <https://doi.org/10.21555/top.v660.2656>
- "Should Causal AI Rule Over Deep Learning?", *Workshop on Causal Discovery CaDis 2023*, Mexican Academy of Computing (AMEXCOMP). December 12th, 2023. [ISBN 978-607-98941-8-4](#).

Conference Articles

- (2021) "The philosophy of computational implementation, and computational systems", presented at the *Symposium on Logic, Epistemology, and Ethics of Artificial Intelligence*, organized by Universidad Panamericana, Mexico City.
- (2019) "Averroes and the rule of logic in philosophical activity", presented at the *V Iberoamerican Philosophy Conference*, organized by Faculty of Philosophy and Letters (UNAM), Mexico City.

Civic Engagement

- (2020 - 2024) Cofounder and Editor of *Revista Spes*, a magazine focused on reflexive thinking, public life and civic journalism.
- (2018) A month of social service at Itiatio, Guerrero, México.
- (2014 - 2015) A year of service at Sta. María Quiegolani, Oaxaca, México.

Newspaper, Magazines and Blogs

These are some articles I have written for newspapers, magazines and blogs.

- (2023-10-24) What is a Philosopher Doing in an Analytics Company? [*Ventagium Data Consulting LinkedIn blog*](#).
- (2023-01-12) A crazy decision. An essay on Don Quixote. *Revista SPES*.
- (2022-02-01) The material world of computing. Book review, “Atlas of AI” by Kate Crawford. *Revista SPES*.
- (2021-12-20) Poems for hope. *Revista SPES*.
- (2021-03-16) Fernanda Melchor in the middle of a hurricane. *Revista SPES*.
- (2020-10-25) Beauty is Better: The music of Maria Joao Pires. *Revista SPES*.
- (2020-10-03) With a clear sight. Book Review, “On Tyranny”, by Timothy Snyder. *Revista SPES*.
- (2019-04-22) Loyalty and resistance. *EL Heraldo de México*.
- (2017-09-24) The Second Earthquake Generation. *Ámbitos de Ciudadanía*.
- (2016-07-01) Interview to Mask Collective Project. *Exprés de San Luis*.

Languages

- Spanish (native)
- English (full proficiency)
- German (limited working proficiency)

Programming Languages

- Python (and pySpark)
- MATLAB
- SQL