Alberto D. Horner
AI Engineering and Causal Reasoning

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AI Engineer, Causal AI independent researcher and a biweekly contributor to the causalpython.io newsletter. I have designed and implemented reliable Cloud Data Architectures for 7+ companies. Causal AI and Tabular GenAI can unlock incredible value both for businessses and science and, in the long run, for society in general. I would always prefer being part of something bigger rather than achieving something on my own.

Industry Experience

EY Global Delivery Services - **Senior AI Consultant** *2025 - present*
- AI Forward Deployed Engineer
- Lead the AI Research Center and Academy (GenAI, Time-Series, Ontology, Tabular Foundational Models)
- Lead the AI Microsoft Fabric Center of Excellence
- Data engineering with Microsof Fabric with a Fortune 100 company
- Development of AI Agents in Microsoft Fabric Architectures

Causal **Python** - **Newsletter contributor** *2025 - present*

Ventagium Data Consulting - **Data Engineer** *2023 -2025*
- Administrator of a private repository for data ingestion and data management with Spark in Microsoft Fabric.
- Developed Causal Analysis to deliver valuable insights to our clients.
- Developed Data Intensive Arquitectures across Microsoft Azure and Microsoft Fabric.

Education

Universidad Nacional Autónoma de México (UNAM) - **Master in Philosophy of Science**
- Thesis: "Machines that think on causes" (Máquinas que piensan causas)
- Advisor: Dr. Francisco Hernández Quiroz (Faculty of Computer Science) *2021 -2023*
- 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**
- Graduated with honors in 2021. Attended from 2015 to 2019. *2015 - 2019*

Certifications

- (2025) Databricks Associate GenAI Engineer
- (2024) DP-600 Microsoft Fabric Analytics Engineer Associate
- (2024) DP-700 Microsoft Fabric Data Engineer Associate
- (2023) AZ-900 Microsoft Azure Fundamentals Certification
- (2022) Machine Learning *Standford University* Online Certified Course by Andrew Ng

Languages

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

Sample ML projects

- RNNs for weather, financial, and population forecasting.
- ALS for product recommendations.
- NNs for magnetic resonance image classification.
- Structural Causal Models to improve retail results.

Awards

- (2018) Second place at the XV International Logic Contest within the Masters category, organized by the Mexican Academy of Logic (AML)
- (2017) First place at the XIV International Logic Contest within the Undergraduate category, organized by the Mexican Academy of Logic (AML)

Skills

- Causal Inference
- Machine Learning
- Data Analysis
- Data Governance
- Data Management
- Security Best Practices
- DevOps

Tools

- Python (and pySpark)
- SQL
- HTML, CSS and Javascript
- MATLAB
- Pywhy
- pgmpy
- PyTorch
- Keras

- scikit-learn
- Microsoft Fabric
- Apache Spark
- SQL Databases
- Near-Real-Time Intelligence
- Data Lakes
- Power Platform
- Power BI

Research Experience

Research Group on History of Philosophy and Mathematics (UNAM) *2023-2025*
- 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) *2023-2025*
- 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.

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.

Teaching Experience

Universidad Panamericana - Ethics Subject Teacher *2022 - 2023*

Prepa UP - High School Ethics, Logic, and History of Art Subject Teacher *2019- 2021*

Civic Engangement

- (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.