

Carlos Lopez Gonzalez (Tuto)

CIVIL ENGINEER & MATHEMATICIAN

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I work in data science in the gaming tech industry, applying AI and machine learning to build predictive and mathematical models for forecasting, player behavior, and offer optimization. Previously, I worked as a civil engineer at an environmental utility focused on infrastructure and renewable energy, where I developed generation models and contributed to gas pipeline projects.

Skills

Python, GIS, Data Science, Machine Learning, Predictive Analytics, AutoCad, MS Office, Visual Studio Code, GIT, Simulation Modeling, Databases, Data Visualization, Strategic Thinking.

Education

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- **M.A. in Mathematics**, San Francisco State University (2023)
 - **B.S. in Civil Engineering**, University of Buenos Aires, Argentina (2017)
 - **Certificate in ML: Business Solutions**, MIT Professional Education (2023)
 - **Machine Learning Summer Research School**, UC San Diego (2023)

Experience

Data Scientist, Gaming Analytics

May 2024 – Present

- Co-invented three patented AI technologies in fraud detection, player segmentation, and behavioral modeling, advancing predictive analytics in the casino industry.
- Developed and deployed machine learning models for churn prediction, offer optimization, and player analytics across 20+ U.S. casinos, saving hundreds of thousands of dollars annually.
- Collaborate with engineering teams to enhance data quality, automate pipelines, and operationalize predictive models across large-scale graph database systems.

AI Trainer, Scale AI – Remotasks

July 2023 – February 2024

- Trained and refined a large language model specialized in mathematics using prompt engineering, improving its accuracy and conceptual coverage across key domains.

Lecturer and Researcher, San Francisco State University

July 2020 – Present

- Taught university-level mathematics and conducted research on the application of artificial intelligence to teaching and learning, work that led to the foundation of the Technology Educator Alliance (TEA).

Civil Engineer, Benito Roggio (Environmental Utility)

Aug 2015 – Dec 2018

- Designed and modeled the infrastructure for a waste-to-energy and treatment facility serving over 10M residents, integrating environmental, hydraulic, and structural systems.
- Built mathematical and simulation models using meteorological data to predict leachate generation with improved accuracy, guiding the design of a 5,000-ton/day treatment facility.
- Prepared technical documentation and cost estimates, for the 910-mile (GNEA) gas pipeline.