

EDUCATION

The University of Chicago | Chicago, IL | MS Applied Data Science

Expected Dec 2025

Coursework: Statistical Models for Data Science, Consulting for Data Science, Data Engineering for Analytics, Machine Learning, Python for Data Science, R for Data Science.

Instituto Tecnológico y de Estudios Superiores de Monterrey (ITESM) | Mexico | B.A in Economics

Dec 2019

Graduated *Magna Cum Laude*

- Elected President for the International Symposium on Economics 36 edition & received Academic Talent Scholarship.

Zeppelin Universität | Germany

Sep - Dec 2018

- Semester abroad

EXPERIENCE

Mexico's Central Bank, Mexico

May 2022 - Present

Economist

- Lead a four-person team to build policy models that predict the impact of external factors such as a COVID and border conflicts on economic variables to provide better insights to policymakers.
- Develop innovative indexes to enhance macroeconomic analysis resulting in a 15% increase in accuracy for predicting the performance of agriculture, tourism and services sectors.
- Assess macroeconomic trends for Mexico's northern region to guide monetary policy decisions and include in the bank's quarterly *Regional Economic Report*.
- Conduct in-depth research on Mexico's manufacturing exports using R programming language, leveraging the Multi-State Input-Output Matrix to understand the influence of U.S. import shifts on Mexico's economic output.

Dirección del Centro de Vinculación y Empresas UANL, Mexico

Sep 2021 – May 2022

Consultant

- Led faculty departments to align on operational improvements resulting in a savings of \$500,000 mxn within an 8-month period.
- Developed strategies to introduce new auxiliary services related to student housing and transportation services to stimulate the university's economic income flow.

Nuevo Leon's Secretary of Finance and General Treasury, Mexico

Jun 2020 – Aug 2021

Financial Planning Analyst

- Led the Subsecretary of Expenditures with financial planning of the State's budget, resulting in a 23% reduction in budgetary discrepancies.
- Built financial indicators based on economic models to optimize state budget expenditure for 2021.
- Drafted fiscal strategies for economic development and analysis of reforms to reduce the financial cost of debt by 0.6% and created a fiscal strategy with the team to restructure the State's short-term debt.

Intern at Mexico's Central Bank, Mexico

Jan 2019 – Jan 2020

- Organized and compiled databases to analyze the effects of monetary policies while monitoring the news to identify threats to new policy measures.

Intern at CEMEX, Mexico

Jan 2018 – Jul 2018

- Analyzed pricing strategies through the conduction of market surveys and the use of indicators to predict market trends.

EXTRACURRICULAR ACTIVITIES

Event Coordination Achievements

Aug 2015 – Dec 2019

- Served as the Coordinator for "Dialogues for Mexico" and the International Economics Symposium editions 34 & 35.

CONFERENCES & PUBLICATIONS

- Presented *The expense in public pensions and the debt level of the Mexican states: empirical evidence* at the 2019 Conference Seminario de Economía Mexicana for *Fitch Ratings Mexico*.
- Maldonado, C. (2018). *Las implicaciones éticas de los incentivos bancarios y su repercusión en los colapsos financieros*. In Revista de Filosofía, Ética y Cultura (12th ed., Vol. 7) Tecnológico de Monterrey.

SKILLS

- Languages: Spanish (native), English (Proficient), German (B1).
- Software: STATA, R Studio, Python, MySQL, Power BI.
- Econometric modeling and core competencies: Panel Data, Time Series analysis, Multi-State Input-Output Matrix, Causal Inference Models, Leadership, Data Management and Data Mining.