Carlos Fabian Fuentes Rivas

Economist

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Professional Profile

Currently pursuing a Master's in Applied Economics with solid experience in advanced data processing and analysis, specializing in the use of statistical software for econometric modeling and data visualization. Highly qualified professional in generating actionable insights for strategic decision-making, with a practical focus on solving complex problems through data analysis.

EDUCATION

Instituto Tecnológico y de Estudios Superiores de MonterreyMexico City, MexicoMaster's in Applied Economics2023 - PresentUniversidad Autónoma de Guadalajara, UDGGuadalajara, MexicoAcademic Mobility Exchange Program2016Universidad Autónoma Metropolitana, UAMMexico City, MexicoBachelor's in Economics2013 - 2017

EXPERIENCE

Senior Research Programmer

October 2024 - Present

Instituto Tecnológico y de Estudios Superiores de Monterrey

Mexico City, Mexico

- I collaborate in the development and application of the SISEPUEDE model (Simulating Sectoral Pathways and Uncertainty Exploration for Decarbonization), a simulation tool designed to analyze the transformations necessary for decarbonization in greenhouse gas emitting sectors at the regional level, we work developing the model with World Bank teams for different regions of the world such as Croatia, and Croatia. Georgia, Iran, among others.
- I perform statistical analysis and econometric models focused on the study of the interaction between decision support tools and human beings.
- I collaborate in the development of discussion forums on urban problems, such as housing in the city of Monterrey, to design strategies based on robust decision-making models.

Associate Researcher

September 2023 - September 2024

Instituto Tecnológico y de Estudios Superiores de Monterrey

 $Mexico\ City,\ Mexico$

• My research work in this position focused on the development of statistical analyses and econometric models to study the interaction between decision support tools and humans. This work focused on evaluating how these tools improve people's ability to make decisions in contexts of deep uncertainty, contributing to the advancement of knowledge in the field of "Decision Making under Deep Uncertainty".

Teaching Assistant - Econometrics

Enero 2025 - Present

Instituto Tecnológico y de Estudios Superiores de Monterrey

Mexico City, Mexico

- Provide technical and academic support to graduate students in the Master's in Applied Economics program, facilitating their understanding of Econometrics course topics.
- Coordinate office hours to address questions, offer personalized guidance, and assist students with assignments and course projects.
- Design and develop practical labs focused on advanced applications of econometric software and statistical analysis.

International Internship

July 2024

Presidential House, Government of El Salvador

San Salvador, El Salvador

Collaborated with presidential advisors in diagnosing the education system and schools in El Salvador, providing key
empirical evidence for the formulation of public policies. Conducted geospatial analysis and data visualization using
R and QGIS to create detailed maps of educational infrastructure and student distribution. Implemented clustering
techniques to optimize resources and improve administrative efficiency. My work was fundamental in supporting
strategic decisions aimed at improving the national education system.

Deputy Director of Poverty Measurement

May 2020 - Sep 2024 Mexico City, Mexico

National Council for the Evaluation of Social Development Policy, CONEVAL

- Lead the identification and analysis of macroeconomic factors affecting poverty and social development in Mexico, utilizing advanced quantitative methods and statistical analysis to influence strategic public policy decisions.
- Lead the estimation and analysis of key indicators related to the Sustainable Development Goals (SDGs), contributing to the UN's 2030 Agenda through advanced data analysis techniques and statistical programming.
- Promote continuous improvement in indicator calculation methodologies, implementing innovative solutions for tracking poverty and social development, enhancing the accuracy and relevance of reports.
- Implement and manage labor poverty analysis programs, significantly improving the efficiency and accuracy of data analysis, and providing robust tools for public policy evaluation.
- Create and present research reports and notes, using unique economic data to provide relevant insights in client
 forums, industry events, and consultative meetings, positioning the organization as a sector leader with highly
 differentiated capabilities.
- Collaborate with data scientists and consulting teams to explore alternative data sets and forecasting methods, pushing the boundaries of traditional economics to offer more precise and useful analyses.

Head of Information Sources Analysis Department

February 2018 - April 2020

National Council for the Evaluation of Social Development Policy, CONEVAL

Mexico City, Mexico

- Integrated databases from various sources, developing a robust statistical information system for constructing sociode-mographic and economic indicators, facilitating strategic and in-depth analysis of the causes of poverty in Mexico.
- Developed calculation programs for estimating poverty and Income Poverty Lines using R, optimizing the precision and efficiency in the measurement and monitoring of these key indicators.

Social Service March 2017 - August 2017

National Council for the Evaluation of Social Development Policy, CONEVAL

Mexico City, Mexico

• Contributed to the 2016 poverty measurement process, actively participating in data validation and the creation of calculation programs using various statistical tools.

Teaching Assistant - Econometrics

January 2017 - December 2017

Universidad Autónoma Metropolitana, UAM

Mexico City, Mexico

Provided academic support in Econometrics classes, facilitating the understanding of concepts and statistical techniques through practical and theoretical sessions.

TECHNICAL SKILLS

Programming Languages: R, Python, SQL, STATA

Geospatial Analysis: R, ArcGIS, QGIS Visualization Tools: Tableau, PowerBI

Development Tools: Git, Docker, Jupyter, AWS

CONTINUING EDUCATION

Diploma in Applied Statistics and Indicator Validation with STATA, (CIMAT 2024)

Data Visualization Course, (Stevens Institute of Technology 2024)

Impact Evaluation Incubator, (CONEVAL 2022)

Multivariate Analysis, 2020

Economic Valuation Methods for Water Environmental Services, 2017

Publications

Multidimensional Poverty in Mexico in the Context of the COVID-19 Health Emergency, Dimensions, OPHI 2022. Link to publication