

ELENA VILLALOBOS NOLASCO

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villanoele  / ElenaVillano 

➤ Mexico City

EDUCATION

- 2020
- 2022 **DATA SCIENCE MASTER [95 % SCHOLARSHIP]**
Autonomous Technological Institute of Mexico (ITAM).
- 2018
- 2019 **APPLIED STATISTICS SPECIALIST**
Research Institute in Applied Mathematics and Systems,
at the National Autonomous University of Mexico (UNAM).
- 2012
- 2016 **BACHELOR'S DEGREE WITH HONORS IN PSYCHOLOGY**
Concentration area: Behavioral and Cognitive Sciences.
School of Psychology, UNAM.

PROFESSIONAL EXPERIENCE

SENIOR DATA SCIENTIST

- Spring,
2022
- present Developing projects to solve social and public problems using data analysis and data science, cloud computing infrastructure management, project leadership, student training, etc.
Data Science Center at The School of Government and Public Transformation of the Monterrey Technological Institute and Higher Education (ITESM).

FELLOW

- Autumn,
2020
- 2022 Mexican Terminal Port Project.
Data analysis and machine learning implementation to predict containers' dwell time.
Data Science Center, ITAM - ITESM.
- Autumn,
2019
- present Global Project with the Common Cents Lab.
Applied research to improve financial health for low -to moderate- income households using Behavioral Science knowledge.
Center for Advanced Hindsight, Duke University - Project ICCE, UNAM.
- Summer,
2021
- present Project of Network analysis with Mental Health data.
Using Network Analysis as method to study psychopathologies with data from the Screening for the detection fo risks to Mental Health by COVID-19.
School of Psychology, UNAM.
- Autumn,
2021 Project to review regulations and public policies of National Institute of Statistics, Geography and Informatics (INEGI)
Review comparative international schemes on the management and exchange of data.
ITESM.

PROJECT MANAGER

- Autumn,
2018 Project of Processes Assessment and Documentation of the *Construye T* program
Evaluating institutional efforts to promote and to develop social emotional skills in junior students.
UNAM / United Nations Development Programme / Secretary of Public Education.

2015,
2019

LAB MANAGER / RESEARCH ASSISTANT

Research on decision making, development of theoretical frameworks, data analysis, conferences and seminars organization, budget management, project review and teaching assistance in the following projects:

Project of Integration of Behavioral Sciences and Economics (Proyecto ICCE).
Perception, Cognition and Behavioral Economics Laboratory, UNAM.

Project of Application of probabilistic models in the study of cognitive processes and the design of algorithms for service robots.

Project of Virtual Tools Development to teach Cognitive and Behavioral Sciences.

Project of Adaptive Learning in Dynamical Environments.

Adaptive Behavior Laboratory (Lab25), UNAM.

PUBLICATIONS

JOURNAL ARTICLES

Chávez, M. E., Villalobos, E., Baroja, J. L., & Bouzas, A. (2017). *Hierarchical Bayesian modeling of intertemporal choice*. *Judgment and Decision Making*, 12(1), 19-28, ([pdf](#)).

WORKING PAPERS

2021

Villalobos, E., Bouzas, A. & Lee, M. *Testing the Integration Rule in Intertemporal Choice models*

SKILLS

ANALYTICAL METHODS

Applied Statistics: Bayesian Inference, Frequentist Statistics, Sampling Techniques, Psychometry, Experimental Design, Multivariate Analysis, Regression Models, Categorical data analysis, etc.

Data Science: Exploratory Descriptive Analysis, data visualization, Network Analysis, Natural Language Processing (NLP), supervised and unsupervised machine learning algorithms, Deep Learning, model deployment, database management, cloud computing, etc.

TECHNICAL

Programming Languages: **Python, Bash, SQL, R.**

Version control: **Git, GitLab, Github.**

Cloud Computing: **Amazon Web Services (AWS) → S3, EC2, RDS, IAM.**

Virtual Environments: **pyenv, virtualenv.**

Database Management: **PostgreSQL.**

Bayesian Samplers: **Stan, JAGS.**

Text Editors: **L^AT_EX, knitr, Markdown.**

Web Development: **html, CSS.**

Others: **Ansible, Luigi, Docker, Spark.**

LANGUAGES

English (IELTS, C1 - February, 2017)

Spanish (First Language).

Updated: June, 2023.