

Alejandro Altair Sánchez Gutiérrez

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Education

BS	Universidad Nacional Autónoma de México , Psychology	Aug 2016 – May 2019
	• Coursework: Experimental Psychology, Data Analysis, Behavioral Finance, Complex Systems, Agent-Based Modelling, Collective Behavior	
S.AS.	Universidad Nacional Autónoma de México , Applied Statistics	Aug 2021 – May 2022
	• Coursework: Univariate Time Series, Bayesian Econometrics, Regime-switch Models, Statistical inference, Generalized linear models, Sampling, Experiment Design, Multivariate statistics	
M.Ec	Centro de Investigación y Docencia Económicas , Economics	Aug 2023 – May 2025
	• Coursework: Business Cycles, Multivariate Time Series, SDGE models, Microeconometrics, Competition Policy, Monetary Policy, Econometric Theory	
PhD	El Colegio de México , Economics	Aug 2026 – May 2029
	• Coursework: Sunspots, Multiple Equilibria, Monetary Policy, Macroeconometrics, DSGE modelling	

Experience

UNPD , Research Assistant	México City, México
• Impact evaluation after a socio-emotional skills intervention. applied to high school population in Mexico City • Application and transcription of semi-structured interviews. • Literature review of psychometrics and educational assesment	Sept 2018 – Dec 2018
Laboratorio de Cognición Numérica , Research assistant	México City, México
• Design of experiments to study numerical cognition • Programming of computer-aid routines • Literature review of numerical cognition • Applying of instruments and experiments to human subjects	Aug 2017 – Dec 2019
Lab 25 , Research assistant	México City, México
• Design of experiments to study reinforcement behavior • Monitoring and caring of non-human experimental subjects • Bayesian data analysis of behavioral and cognitive models • Literature review about microeconomic behavioral in humans and non-human animals	Aug 2019 – Jan 2020
Facultad de Psicología (UNAM) , Associate professor in Learning and Adaptative Behavior	México City, México
• Making of instructional materials about evolutionary theory, animal learning and cognition • Teaching topics about relationship of evolution and learning • Literature review of scientific articles about behavioral models of learning	Aug 2018 – Aug 2019
Facultad de Psicología (UNAM) , Associate professor in Bayesian Econometrics	México City, México
• Design of educational materials to undergraduate students	Aug 2024 – Dec 2024

- Teaching topics about probability, statistics and bayesian inference
- Preparing computational routines in R programming language

IIMAS(UNAM), Student at AME school of statistics and data science

- Taking courses about time series, supervised and non-supervised learning

México City, México
Nov 2024 – Nov 2024

IIEc (UNAM), Student at seminar "Complex systems applied to economics and social sciences"

- Taking courses that brought me tools to analyze economy from a complexity approach, like dynamical systems and ABM

México City, México
Sep 2023 – Dic 2023

Santander, Business Intelligence Manager

- Causal inference analysis to measure the impact of new business policies without previous research design.
- Experimental design to test new business proposals and answer specific challenges of multiple areas.
- Dashboard build-up and descriptive analysis, to encourage continuous monitoring of KPI,s and other relevant performance metrics.
- Executive presentations to translate economic and statistical knowledge for non-technical audience.

México City, México
Aug 2025 – Jan 2026

Projects

Agent-Based Modelling of Artificial Financial Markets

2023

- Implementation of social learning computational model to represent complex financial dynamics
- Tools Used: Netlogo

Bayesian regime-switching models to analyze the effect of COVID outbreaks in price levels

2024

- Implementation and simulation of bayesian time series models to mexican INPC data
- Tools used: Python (PYMC3)

A macroeconometric approach to modelling interaction between real and financial cycles in Mexico

2024

- Application of multivariate time models, like VAR and its related tools (IRF, historical decomposition) to investigate the cyclic behavior of real and financial variables; also, linear regressions with GMM were employed
- Tools Used: R

Skills

Programming Languages: R, Python, JAGS, STAN, C++, Netlogo, LATEX

Languages: Spanish (native speaker), English (intermediate level), Portuguese (basic level)

Awards and Special Achievements

Honorific mention of bachelor thesis

Member of Nudgeathon winner team: Academic contest to design a public policy based in behavioral economics to incentive water refill habits at UNAM campuses, in collaboration with Warwick University