Sonny Alberto Medina

Applied mathematician - MSc Probability & Statistics
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PROFESSIONAL EXPERIENCE

University of Bath, SAMBa — PhD Candidate /GTA

SEPTEMBER 2020 - PRESENT

PhD Student of the Statistical Applied Mathematics program.
Graduate Teaching Assistant in Probability & Statistics units.

Nielsen, Data Science - GDDC— *Statistician*

NOVEMBER 2018 - AUGUST 2020

Leading the Retail Establishments Survey design review.
Estimation of universes under markets precision target constraints.

SMA, CDMX — *Independent consultant*

JULY 2018 - DECEMBER 2018

Assessment of the redundancy of pollutants monitoring stations through statistical methodologies.

Human Rights Commission, CDMX — *Analyst*

AUGUST 2015 - AUGUST 2016

Automation of reports in R Markdown, creation of dashboards for describing the lawyers performance and projects to reduce the retardment on the resolution of the complaint records.

EDUCATION

CIMAT, Guanajuato — *MSc Probability & Statistics*

AUGUST 2016 - JUNE 2018
Graduated. GPA: 9.50/10.00

UNAM, Faculty of Sciences — *BSc Actuarial Science*

JULY 2011 - AUGUST 2015

Graduated with honours. GPA: 9.0/10.0

SKILLS

Statistics

Survey sampling

Probability modelling

Time Series forecasting

Data/Maps visualisation

Risk quantification

COMPUTER SKILLS

R (+4yrs)	⊘	⊘	⊘	⊘	⊘
Excel	⊘	⊘	⊘	⊘	⊘
Python	⊘	⊘	⊘	⊘	⊘
SAS	⊘	⊘	⊘	⊘	⊘
C,C++	⊘	⊘	⊘	⊘	⊘

LANGUAGES

Spanish: Native

English: Professional proficiency (TOEFL iBT 2019: 96/120)

PROJECTS

Thesis

INEGI 2010 Census sample: variance estimation.

Gerber-Shiu function for a renewal risk model with positive jumps and brownian perturbation.

Article — *Time series models*

Time series models applied to the records of the Human Rights Commission of the Federal District

ADDITIONAL INFORMATION

Given talks

Estimation techniques in survey sampling with official data, Jr Seminar of Math, Univ. of Guanajuato.

ARIMA vs Bayesian Structural models, Bottles and Models Meetings, DSci Nielsen.

Workshops

Industrial problems workshop – Working with a local Electoral Commission. Developing a sample design for the "quick count" of the 2018 local elections.

Integrative Think Tank 13 – University of Bath / Roche Proposing a machine learning model to predict the success of clinical phases to optimise a portfolio of oncology drugs.

Awards

Nielsen Simply Excellence Award. For the RES Design Review project, that implied a saving of more than $30K US. and 60 work days for Data Acquisition through implementation of sample selection algorithms and KML map generation with R.

ACADEMY

UNAM, FES Acatlán

AUGUST 2019 - SEP 2020

Lecturer:

Stochastic Processes I

Probability I

Risk Theory

CIMAT

JANUARY 2017 - DECEMBER 2017

Teaching assistant:

Foundations of probability and Statistics

Data Analysis for Computer Sciences

UNAM, Fac. of Sciences

AUGUST 2014 - JULY 2016

Teaching assistant:

Probability

Survey Sampling

Probability and Statistics for Computer Sciences

July 2023