Asael Alonzo Matamoros

Bayesian Data Analyst/ Probabilistic Machine Learning/ Forecasting.

🏠 asael697site　　🔘 asael697　　in asael-am　　✉ asael.alonzo@gmail.com　　📞 +358 417044563

EXPERIENCE

Contract: Evaluation of data visualization

ArviZ - Google Season of Docs | October 2022 - Current job.
Evaluated the effectiveness of Arviz's functions for posterior visualization, predictive checks, and MCMC diagnostics for correct Bayesian modeling.
`Skills: Python, Git, PyMC, Data Visualization.`

Mentor, Google Summer of Code   Bayesian ARIMA models in PyMC3 (2021).
Mentored the project of implementing Bayesian ARIMA models for probabilistic forecasting in PyMC.
`Skills: Python, Github, PyMC, Time-series.`

Research contract

Finnish Center of Artificial Intelligence | October 2020 - October 2022.
Studied the uncertainty of Cross-Validation methods when comparing probabilistic machine learning models.
`Skills: R, ML, Model Comparison, Data Visualization.`

Assistant Professor, Statistics Department

Universidad Nacional Autonoma de Honduras (UNAH) | October 2017 – October 2020.
Imparted Statistical Inference, Stochastic Processes, and Linear Models for the Department of Statistics.
`Skills: Julia, STATA, Mathematics, Bayesian Statistics.`

Data analyst

Instituto Hondureño de Transporte Público | January 2017 – April 2018.
`Skills: Simulation, Probability, Mathematical Modeling, Bayesian Statistics.`

RELEVANT PROJECTS

Bayesian order identification of ARMA models with projection predictive inference.   McLatchie Y., Alonzo Matamoros A., Kohns D., Vehtari A. (2022)
We proposed a novel method for automatic order selection of Bayesian ARIMA models with Projection predictive inference.
`Skills: R, Model selection, Forecasting, time-series.`

Uncertainty in Bayesian Leave One Out Cross-Validation model comparison.   T. Sivula, M. Magnusson, A. Alonzo Matamoros, A. Vehtari, (2022).
I studied the uncertainty of Cross-Validation methods when comparing probabilistic machine-learning models.
`Skills: R, Data Visualization, Bayesian Statistics, ML.`

Bayesforecast: An R package for Bayesian Time series analysis.

A. Alonzo Matamoros, A. vehtari (2021).
I developed one of the first R packages for Bayesian time-series modeling and probabilistic forecasting.
`Skills: C++, Developer, Stan, Time-series.`

NortsTest: Assessing normality of stationary processes.

A. Alonzo Matamoros, A. Nieto-Reyes (2021).
I developed an R package for normality tests for stationary processes.
`Skills: Developer, mathematics, R, Hypothesis testing.`

SKILLS

PROGRAMMING

• R • Python • Julia • Octave • Git
• C++ • Java • SQL • Matlab

STATISTICAL TOOLS
• SPSS • Stata • R • Excel • Stan • PyMC.
• Tidyverse • Tableau • PowerBI.

WORK
• Multi-task,
• Independent,
• Time Management,
• Decision Making,
• Continuous Improvement,
• Focus,
• Proactive,
• Friendliness.

LANGUAGES
• Spanish (Native),
• English (Professional).
• Dutch (Beginner).

EDUCATION

Ph.D. candidate Computer Science

Aalto University | Espoo, Finlnad.
October 2020 | Current study program.

M.Sc. Mathematics and Computation

Universidad de Cantabria | Santander, Spain.
October 2019 – October 2020.

Certification in Probability

Society of Actuaries (SOA) | online, USA.
November 2016.

B.Sc. Mathematics and Computer Science

UNAH | Francisco Morazan, Honduras
January 2010 – January 2015.

REFERENCES

Cristian Cruz, Associate Professor, UNAH.
✉ cristian.cruz@unah.edu.hn

Alicia Nieto-Reyes, Associate Professor, Universidad de Cantabria.
✉ alicia.nieto@unican.es

Fabrizio Ruggeri, Research Director at the Italian National Research Council in Milano.
✉ fabrizio@mi.imati.cnr.it