Jorge Loría

PhD Candidate

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/jorge-loría loriaj.github.io/

Education

Purdue University 2019 – 2024 (expected)
PhD Statistics, Advisor: Dr. Anindya Bhadra *West Lafayette, Indiana, USA*

Universidad de Costa Rica 2014 – 2017
BS Actuarial Science *San José, Costa Rica*

Universidad de Costa Rica 2015 – 2019
BS Pure Mathematics *San José, Costa Rica*

Publications

Preprints

» **Loría, J.**, Bhadra A. (2023+), Posterior Inference on Infinitely Wide Bayesian Neural Networks under Weights with Unbounded Variance *(submitted)* [arxiv] [github]
» Fernández-Loría, C, **Loría, J.** (2023+), Learning to Rank by Causal Effects Without Data to Accurately Estimate Causal Effects *(submitted)* [arxiv]
» **Loría, J.**, Bhadra A. (2023+), SURE-tuned Bridge Regression *(submitted)* [arxiv] [github]

Publications

» Víquez, J. J., Víquez, J., Campos, A., **Loría, J.**, Mendoza, L. A. (2018). Demographic Modeling via 3-dimensional Markov Chains *Revista de matemática Teoría y aplicaciones* available in https://revistas.ucr.ac.cr/index.php/matematica/article/view/33608

Awards

Ross-Lynn Research Scholar Grant Spring 2024
provides funding for notable graduate students

Department of Statistics Teaching Academy Associate Nominee Spring 2023

Emily and Paul Kidwell graduate student excellence Award Spring 2022
given to graduate students in the Department of Statistics in Purdue University interested in careers in academia.

Bob and Marjorie McLean Scholarship Summers 2020 and 2021
given to distinguished graduate students of the Department of Statistics in Purdue University.

Bronze Medal 2015
awarded in Competencia Iberoamericana Interuniversitaria de Matemáticas

Honorable Mention 2014
awarded in Competencia Iberoamericana Interuniversitaria de Matemáticas

Research Experience

Purdue University

- Research Assistant to Dr Anindya Bhadra Spring 2022 and Fall 2023
in the project Inference in Infinite Width Neural Networks with Infinite Variance

- Research Assistant to Dr Arman Sabbaghi Fall 2020-Summer 2021
designing experiments and evaluating results for refinement of nanotellurene thickness

- Team leader in Statistics for the Community 2019-2021
investigated the effects of having a bicycle to enable access to charity locations for impoverished people, with the LifeCycle program *(voluntary)*.

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Universidad de Costa Rica

- Research Assistant to Dr Luis Barboza 2016

» implementing an actuarial model for a projection model of Caja Costarricense del Seguro Social
» in the project "Prediction of North Hemisphere Temperatures using a Hierarchical Bayesian Model"

- Research Assistant to Dr Juan José Víquez 2015

» implementing a multivariate Markov chains model for the projection of public universities in Costa Rica

Teaching Experience

Purdue University Fall 2022
Instructor *Indiana, United States*
» Taught one section of the course *Introduction to Statistics*. An introductory course for undergraduate students of computer science, mathematics, actuarial science, and statistics majors. Responsibilities included three weekly lectures, preparation of the relevant material, grading, and collaboration with the other instructors in the evaluation and design of the assignments of the course.

Purdue University Fall 2021 – Summer 2022, Summer 2023
Instructor *Indiana, United States*
» Taught two sections of the course *Elementary Statistical Methods*. An undergraduate level course for non-stem majors. Responsibilities included two weekly lectures to each section, preparation of the material, grading, leading teaching assistants and collaboration with other instructors for the evaluation of the course assignments.

Purdue University Fall 2019 – Spring 2021
Teaching Assistant *Indiana, United States*
» Held laboratories for two sections, office hours, and grading for the course *Elementary Statistical Methods*.

Universidad de Costa Rica Fall of 2017 & 2018
Instructor *San José, Costa Rica*
» Taught undergraduate course on basic functionalities of Excel and R. Responsibilities included lesson planning, course scheduling, and preparation of homework, exams, and course projects.

Industry Experience

Banco Promérica January 2019 – July 2019
Financial Risk Analyst, analyzed financial data to evaluate and forecast credit risk *San José Costa Rica*

Quanto Soluciones S.A. January 2017 – July 2018
Actuarial Model Programmer, implemented credit risk models *San José Costa Rica*

Communication

Spanish *Native* **English** *Advanced* **Portuguese** *Basic*

Summer Schools Attended

Courses in Functional Analysis and Complex Analysis July 2018
Università per Stranieri di Perugia *Perugia, Italy*

Course in Markov Chains and Applications Summer 2015
Instituto de Matemática Pura e Aplicada *Rio de Janeiro, Brazil*

Talks and Posters Presented

SURE-tuned Bridge Regression August 7th, 2023
Contributed Paper in Joint Statistical Meeting *Toronto, Canada*

SURE-tuned Bridge Regression July 10th, 2023
Contributed talk in XVI Latin American Congress of Probability and Mathematical Statistics *São Paulo, Brazil*

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SURE-tuned Bridge Regression May 26th, 2023
Poster in Statistics and Optimization in Data Science Workshop, in Business School *Indiana, USA*

Learner Culture and Perceptions of Social Media Applications and Learning Management Systems for Language Learning April 2023
Paper session American Educational Research Association (AERA) *Illinois, USA*

Examining Learner Culture, Country, Gender, and English Public Speaking and Peer Feedback Self-Efficacy April 2023
Round table in AERA *Illinois, USA*

Learning the Ranking of Causal Effects with Confounded Data October 2022
Flash talk in INFORMS *Indiana, USA*

Skills

Coding Proficient in `R` and `python`

Statistics Bayesian data analysis, classical generalized linear models, and spatial statistics.

Probability familiar with theory on basic stochastic processes, applications to finance, random matrix theory, and $\alpha-$stable variables in one and several dimensions.

Machine Learning & Neural Networks familiar with implementation using common libraries and routines.

Service and Leadership

- President of Statistics Graduate Student Organization 2021-2022
Indiana, USA

- Vice-president of Costa Rican Students Association at Purdue (CRISaP) 2021-2024
Indiana, USA