Francisco Emiliano Lopez Saavedra

(450)626-8649 | e-lopz.github.io | emiliano.lopez2404@gmail.com | Montreal,QC

EDUCATION

Bachelor of Science in Computer Science and Mathematics Aug. 2020 – Dec.2023

University Of Montreal Montreal,QC

- **Bourse d'exemption pour les étudiants étrangers** :The biggest scholarship for academic merit available for international students during bachelor studies at the UofM.
- **Relevant classes taken**: Fundamentals of Machine Learning(Python): A+;Biostatistics A-; Theoretical Foundation of Data Science: A, Linear Regression: A, Algorithms: A

PROJECTS

Bio statistics project

- **Conducted** study analyzing the relationship between maternal factors and low-weight infant birth outcomes to evaluate predictive models and gain deeper insights.
- **Explored** a range of predictor variables using hypothesis testing and model selection techniques.
- **Applied** rigorous data examination and validation methods, ensuring both statistical significance and practical relevance in interpreting results.
- **Aimed** to further the understanding of maternal and infant health by critically examining both the ethical implications and the statistical findings.

Personal NLP Project: Gender Bias Mitigation in AI

- **Replicated** the results from Mila's Biasly project using their open-source dataset designed to detect and mitigate subtle misogynistic language.
- **Explored** the impact of various machine learning models on bias detection, analyzing model performance to understand their effectiveness in addressing gender biases in text.
- **Conducted** an in-depth study of model variations to assess how different approaches influence the identification and mitigation of subtle biases.

Downscaling Climate Models

- **Worked on** enhancing climate modeling accuracy at finer scales by integrating high-resolution datasets and topological indicators into large-scale simulations, aiming to refine regional and community-level projections.
- **Explored** the application of ResNet and U-Net architectures to model the relationship between climate patterns and geographical structures.
- **Developed** methods to integrate topological data into global-scale climate datasets, enhancing large-scale simulations with high-resolution geographic details.
- **Studied** the impact of incorporating localized climatic details into global climate models.

SKILLS

Languages : Python, Java, R, Matlab, JavaScript, HTML, CSS, SQL

Tools :GitHub, Linux, Numpy, TensorFlow, Python, Pandas, SQL, Data Analysis, Machine Learning, Biostatistics, Natural Language Processing (NLP), Climate Modeling, Data Visualization

Human Languages :Spanish, English, French