Jesús de la Fuente Cedeño

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Education

Center for Data Science, New York University Sep 2022 - Sep 2023
Fulbright Fellowship Ph.D. Researcher New York

Research Topics: Adaptive autoencoders for train-test distribution shift.
Advisor: Carlos Fernandez-Granda (Ph.D. Stanford '14).

Electrical Eng. Department, University of Navarra Sep 2020 - Feb 2025
Ph.D. candidate in Machine Learning applied to Computational Biology Spain

Research Topics: Graph Learning, Representation Learning, Bayesian Inference, xAI.
Advisors: Idoia Ochoa (Ph.D. Stanford '16) and Mikel Hernaez (Post-doc Stanford '16).

TECNUN School of Engineering, University of Navarra Sep 2014 - 2020
B.Eng. & M.Eng: Electrical Engineering Spain

Experience

Softvision AI March 2025 - Current
Machine Learning Quantitative Researcher Remote

- Designing and implementing models for MFT strategies on cryptocurrencies derivatives.

SonyAI Sep 2024 - March 2025
Research Scientist Intern Barcelona

- Working with **LLMs** on hypotheses generation for knowledge graphs and link prediction challenges.

DeepFi Ltd. (Startup) May 2022 - Oct 2022
Research Scientist Intern Remote

- Designed and implemented models for liquidity provision strategies on DeFi protocols.

ML Projects led

Interpretable Causal Representation Learning for Biological Data in the Pathway Space 2024
Interpretable framework with theoretical guarantees

- Poster at AIDrugX, **NeurIPS 2024**. Published at ICLR 2025.

Sweetwater: An interpretable and adaptive autoencoder for efficient tissue deconvolution 2023
Autoencoder for train-test distribution shift minimization

- Poster in MLCB 2023. *Under second review* at **Nucleic Acid Research**. (arXiv).

Towards a more inductive world for drug repurposing approaches 2022
Inductive and transductive node embedding analysis on bipartite graphs

- **Oral presentation** ($\frac{6}{76}$) in AI4D3, **NeurIPS 2023**. Published in Nature Machine Intelligence.

Bayesian machine learning enables transcriptional rewiring 2021
Bayesian inference model with sparsity constraints

- **Oral presentation** ($\frac{10}{43}$) in ISMB/ECCB 2021. Published in Cancer Research.

Skills

Languages
Python, R, Linux/Bash, LaTeX, Solidity.

Libraries
PyTorch, SciPy, NumPy, Seaborn, Scikit-learn.

Technologies
Docker, Poetry, Slurm, Hydra, Git, AWS.

Software
SENA-VAE, GraphGuest, Sweetwater, TraRe

Machine Learning
LLMs, **Graph Neural Networks**, Generative Models, Autoencoders, Knowledge Graphs, Linear/Logistic Regression, SVM, PCA, Ensemble Learning.

Personal
Highly self-disciplined, detail and result-oriented. Creative and self-starter. Able to work on multiple projects simultaneously, with multidisciplinary teams.

Honors and Awards

1. **Kaggle Competitions Expert**. Ranking 1,581th out of 204,302 competitors. user: *jdlfuentec*. 2024
2. **Kumo** AI Hackathon: Raking 2nd out of 20 competitors. April 2024
3. **Ph.D. Fulbright Fellowship**, 1 year at New York University. **Amount: 41,180 $** Sep 2022
4. Navarra's Government Fellowship, 2 years Ph.D. Funding. **Amount: 68,718 €** Sep 2021-2023