# Jesús de la Fuente Cedeño

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## Experience

**Softvision AI** March 2025 - Current
Machine Learning Quantitative Researcher Prague (Remote)

- Building **MFT** strategies on **crypto-asset derivatives** through machine learning models.

**SonyAI** Sep 2024 - March 2025
Research Scientist Intern Barcelona

- Leveraged **LLMs** for automated hypothesis generation and link prediction in knowledge graphs.

**DeepFi (Startup)** May 2022 - Oct 2022
Research Scientist Intern Madrid (Remote)

- Developed liquidity provision strategies leveraging **gradient-boosting models** on **Uniswap v3** pools.

## 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

## 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.

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

- Poster in MLCB 2023. Published at Nucleic Acid Research.

**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**, Decision Trees, Autoencoders, Knowledge Graphs, Gradient-Boosting, Linear/Logistic Regression, 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**. Highest Rank: $997^{th}$ out of +200,000 competitors.
2. **Kumo AI** Hackathon: Ranking $2^{nd}$ 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