Marti JIMENEZ

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Education

INSA (National Institute of Applied Science) 4th Year   **Toulouse, France**
Master of Engineering, Computer Science   09/2020-Today

University of Twente, M1 Exchange Semester   **Enschede, Netherlands**
Machine Learning, Deep Learning, NLP, Information Retrieval, Managing Big Data   09/2023-02/2024

Experience

Deep Learning Researcher in Oncology, University of Montpellier (Internship)   3 months, 2023
Laboratory of Pathogen and Host Immunity (LPHI), Montpellier, France
- Developed a n-Dimensional non-linear Partial Differential Equations (PDEs) solver framework employing Physics-Informed Neural Networks (PINNs), resulting in an exponential reduction of time complexity compared to traditional methods.
- Researched and proposed 2 methods to solve interdependent systems of non-linear PDEs with PINNs.

Projects

marti2405.github.io

- Creation of a dataset for satellite pose estimation with GANs (ongoing project)

- Data-Leak-Driven Membership Inference Attack on ResNet-18 (2024)

- Linking Writing Processes to Writing Quality with transformers (2024)

- Image Retrieval with Siamese Networks (2023)

- Music Genre Classification based on lyrics with Natural Language Processing (2023)

- Numerical Solutions for Poisson's Equation with Julia (2023)

- Software for French pronunciation assistance with Signal Processing and Neural Networks (2022)

Skills

Skills: Machine Learning, Applied Mathematics, Data Structures & Algorithms, Deep Learning, NLP
Frameworks/Libraries: PySpark, Pandas, Tensorflow, Keras, PyTorch, Scikit-Learn
Programming Languages: Python, Julia, C, Java, Matlab, x86 Assembly
Languages: Native languages: French, Spanish, Catalan. Advanced: English-C1(TOEIC 965/990)

Activities

Activities: Pianist, Singer and guitarist in a Rock Band, Road Cyclist, Lacrosse player