Martí Jiménez

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Experience

AI for high dimensional PDE modeling in oncology, 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.
- Successfully solved a complex 4D non-linear PDE system that captures the evolution of melanoma tumor heterogeneity, utilizing the finite difference method in Julia.
- Researched and proposed 2 innovative methods to solve interdependent systems of non-linear PDEs with PINNs.

Projects

AI Software for French pronunciation assistance, Project 5 months, 2022
- Developed software that detects and evaluates pronunciation of consonant pairs in spoken French.
- Fully coded Neural Network using Python, obtained 100% detection accuracy after training and correct variation of the output based on pronunciation.
- Demonstrated utility on improving pronunciation skills.

Spanish Word Guessing Game, Project 1 month, 2021
- Coded SEMANTIKA web game using Word2Vect with distance calculation between words.

Education

INSA (National Institute of Applied Science) 4th Year (Currently Taking) **Toulouse, France**
Engineering Degree in Computer Science, top 10% ranking 09/2020-Today

University of Twente, M1 Exchange Semester (Currently Taking) **Enschede, Netherlands**
Machine Learning, Deep Learning, NLP, Information Retrieval, Big Data 09/2023-Today

Harvard University | Artificial Intelligence (Currently Taking) **Remote**
CS50's Introduction to Artificial Intelligence with Python 08/2023-Today

Skills

Skills: Machine Learning, Advanced Mathematics, Algorithm Design & Problem Solving, Research
Programming Languages: Julia, Python, C, Java, Matlab, x86 Assembly
Languages: <u>Native languages</u>: French, Spanish, Catalan. <u>Advanced</u>: English-C1(TOEIC 965/990)

Interests, Activities & Portfolio

Piano, Guitar, Drums, Singing : 10 years of piano, singer and guitarist in a Rock Band, learning drums
Running, Cycling: 7 years of running, 3 years of road cycling, Winner of the Girona Half Marathon 2020 -20 category
Portfolio: https://marti2405.github.io/