DANIEL JIMENO HUETE

BIOMEDICAL ENGINEER

ABOUT ME

I am a responsible and team-oriented programmer with a strong passion for AI. With both academic and professional experience in AI technologies, I excel at problem-solving and enjoy exploring the latest trends in the field. My curiosity drives me to stay updated on advancements, ensuring that I bring innovative and informed solutions to every project. I thrive in collaborative environments and am committed to delivering high-quality results.

EDUCATION

- Master's degree in **Machine Learning in Health** at **Universidad Carlos III de Madrid (UC3M)** (in English)

  Master's degree focused on the intersection of **machine learning** and **bioengineering**, with a strong emphasis on health applications. The program provided in-depth training in **data analysis, signal processing, and AI**, particularly in medical signals and imaging. This rigorous curriculum equipped me with the theoretical and practical skills necessary for research and R&D roles in industry.

  Final grade: 8.38/10

  | September 2023 – September 2024 |

- Bachelor's degree in **Biomedical Engineering**, at the **Polytechnic University of Madrid** (UPM).
  - **Data Engineering and Digital Health** specialization.

  Final grade: 7.4/10

  | September 2017 – July 2022 |

  University entrance exam: 12.556/14

- **10th Grade in Flanagan-Cornell High School, Illinois**, USA.

  | 2014 – 2015 |

PUBLISHED PAPERS

- **An IoT- Based System for the Study of Neuropathic Pain in Spinal Cord Injury**

  Springer, 2023

- **Differential study of retinal thicknesses in the eyes of Alzheimer's patients, multiple sclerosis patients and healthy subjects**

  Biomedicines, 2023

- **Diagnosis of multiple sclerosis using optical coherence tomography supported by explainable artificial intelligence.**

  Eye, 2024

CONTACT INFORMATION

+34 727 70 30 23

jimenodaniel7@gmail.com

Madrid, Spain

https://www.linkedin.com/in/daniel-jimeno-huete-800062219

https://github.com/jimenodaniel7

HABILITIES

- ✓ **Programming** knowledge in Python, Java, MATLAB, HTML and C++.
- ✓ Experience and knowledge of **AI, ML algorithms and DL**
- ✓ Knowledge of **databases** (SQL) and Data Science (R).
- ✓ Knowledge of **Office** (Excel, PowerPoint, Word…).
- ✓ Experience working in **clinical research**

LANGUAGES

Spanish
Native

English
C1 level certified by Cambridge

German
A2 level certified by EOI

WORK EXPERIENCE

- **Research R1** in the European project **HARIA** at the National Hospital for Paraplegics in Toledo in the **FENNSI research group.**

  In the FENNSI group, I contributed to various projects, particularly in **statistical data analysis** and **signal processing**. However, my primary contribution was to HARIA, a European project focused on **using robotic arms to assist physically disabled individuals** in their daily activities. I was responsible for **integrating the technological systems** developed by other research groups into the hospital setting.

  | January 2024 – present |

- **Master's thesis** "Development of Deep Learning methods for brain age prediction in non-human primates".

  This project involved designing a **deep learning model**, based on a ResNet architecture, for predicting brain age using **MRI scan** data from marmosets. The work was a collaboration between **the University of Cambridge** and **Universidad Carlos III de Madrid**.

  Final grade: 8.4/10

  | January 2024 – September 2024 |

- **Research assistant** in **Biomedical Engineering Group** of the **University of Alcalá**

  The main focus of the research is the application of Artificial Intelligence in diagnosing neurological pathologies. I primarily contributed to two projects:

  Developing deep learning models for diagnosing glaucoma in extreme cases of high myopia, using a database of fundus images. The training data was provided by Miguel Servet Hospital in Zaragoza.

  Designing machine learning models to predict the risk of neurodegenerative diseases, specifically Multiple Sclerosis and Alzheimer's. The data for this project consisted of retinal layer thickness measurements from patients with these diseases, alongside an equal amount of data from a control group.

  | November 2022 – January 2024 |

- **Telefónica Tech Talentum** scholarship in the **Medical IoT & Big Data** group.

  Collaborated with the Engineering team at TTech to develop machine learning tools for clinical applications.

  | May 2022 – October 2022 |

- **Bachelor's Thesis** "Development of a method for analyzing neural signals in a subject with neuropathic pain derived from a spinal cord injury" at the National Hospital for Paraplegics in Toledo.

  This project involved the **acquisition, processing, and statistical analysis of EEG signals from a motor imagery** task in a subject diagnosed with neuropathic pain resulting from a spinal cord injury. The final goal was to analyze if the pain the subject was feeling each day could be related to the brain activity.

  Final grade: 9.5/10

  | January 2022 – July 2022 |

- Collaboration in the project "**Monitoring of neuropathic pain in patients with spinal cord injury through a mobile APP and recording of electroencephalographic activity**" with the investigation group FENNSI in the National Paraplegic Hospital in Toledo, Spain, and the **University of Malmö in Sweden**.

  The Project was about the development of a mobile APP for accurately recording the pain and other data from the patient. This was used to monitored the subjects that were conducting this experiment.

  | 2021 – 2022 |