HUGO SILVA

Data Science, AI and Machine Learning

@ hugo.hes.silva@gmail.com   🌐 Personal Website   🔗 LinkedIn   ⬡ GitHub

WORK EXPERIENCE

Research Assistant
Chalmers University of Technology

📅 Feb 2024 – Ongoing   📍 Gothenburg, Sweden

- This research focuses on Multimodal Machine Learning, a subfield of AI and data science that integrates multiple data modalities for improved model performance. The primary emphasis is on **Modality Imbalance and Data Quality**, aiming to balance modalities for optimal contributions.
- The findings will be presented in two papers at the **ECML-PKDD 2025 conference** in September 2025.

Intern
Critical Software

📅 Jun 2022 - Jul 2022   📍 Coimbra, Portugal

- Development of an application for virtual cycling that uses a real bicycle and a VR headset to provide an immersive experience for the user. Certificate Link

Teaching
TreeTree2

📅 Oct 2022 - Dec 2022   📍 Lisbon, Portugal

- Python Teacher for the Programming Course at Afterschool, treetree2. Certificate Link

MAIN PROJECTS

Master Thesis
Optimising Multimodal Learning with a System-Aware Perspective

Modality Balancing for Multimodal Learning
Currently developing two research papers focused on modality imbalance and data quality

Multimodal Understanding of Sentiment and Emotion
Comprehensive study on emotion and sentiment recognition in conversations using multimodal learning and context modelling

Neural Recommendation System
Neural Collaborative Filtering with an Emphasis on Interpretable Recommendations

EDUCATION

M.Sc. in Data Science and AI
Chalmers University of Technology

📅 Sept 2023 – June 2025   📍 Gothenburg, Sweden

Grades and Certificate Link

B.Sc. in Computer Science and Engineering
Instituto Superior Técnico

📅 Sept 2020 – June 2023   📍 Lisbon, Portugal

Grades and Certificate Link

ACHIEVEMENTS

Academic Merit Awards - 2021, 2022 and 2023 - Instituto Superior Técnico - Link

Advertisement Acting - Main role in a Portuguese Bank's Advertisement featuring Cristiano Ronaldo - Video Link

SKILLS

- **Data Science, AI and Machine Learning**: Python PyTorch TensorFlow Scikit-Learn Keras
- **Databases & Large-Scale Data Techniques**: SQL NoSQL Slurm
- **High-Performance Computing & Computer Engineering**: C C++ C# Assembly
- **Statistics & Optimisation**: R Julia
- **Software Engineering**: Java Javascript
- **Game Development**: Unreal Engine 5

LANGUAGES

English
C2 Level: Proficient User ●●●●●

French ●●●○○

HOBBIES

- Sports - Climbing, Football, Weight Lifting
- Music - Guitar Playing
- Gaming and Game Development