

# Afonso Leote

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## Research Interests

Trustworthy Artificial Intelligence, Explainable AI (XAI), neuro-symbolic AI, transparent, human-centric AI, Mechanistic Interpretability, Fairness in Machine Learning

## Education

- |                |  |
|----------------|--|
| 2024 – Present | <b>MSc in Computer Science and Engineering</b><br>NOVA School of Science and Technology, NOVA University Lisbon<br><i>Current GPA: 19/20</i> |
| 2021 – 2024    | <b>BSc in Computer Science and Engineering</b><br>NOVA School of Science and Technology, NOVA University Lisbon<br><i>Final GPA: 18/20</i>   |

## Publications

- [1] Manuel de Sousa Ribeiro, **Afonso Leote**, and João Leite **On the Performance of Concept Probing: The Influence of the Data**. In *Procs. of the European Conference on Artificial Intelligence (ECAI'25)*, 2025
- [2] Manuel de Sousa Ribeiro, **Afonso Leote**, and João Leite **Concept Probing: Where to Find Human-Defined Concepts**. In *Procs. of the International Conference on Neurosymbolic Learning and Reasoning (NeSy'25)*, 2025

## Honors and Awards

- |             |   |
|-------------|---|
| 2024 – 2025 | <b>MSc Research Grant</b><br>Project PRR STONE (C644943391-00000051/40).  |
| 2023        | <b>Top Student Award</b><br>NOVA University Lisbon<br>Awards the top students of the university.  |
| 2016        | <b>1st Place Oeiras Internet Challenge '16</b><br>Oeiras Valley<br>First place among all teams from all schools in the Oeiras municipality. |

## Research Experience

- 2024 – 2025     **Graduate Research Intern**  
NOVA LINC3, NOVA University Lisbon  
During this internship, supervised by Prof. João Leite, we investigated various characteristics relevant to concept probing, focusing on the data involved and the evolution of concept representations throughout neural network models.
- 2023 – 2024     **Undergraduate Research Intern**  
NOVA LINC3, NOVA University Lisbon  
In this internship, supervised by Prof. João Leite, we explored the application of wrapper feature selection methods to pinpoint small sets of neurons that may represent human-defined concepts within neural network models.

## Professional and Community Service

- 2023     **Volunteer Staff at EXPO FCT**  
Department of Informatics, NOVA University Lisbon  
Helped organizing, setting up, and welcoming high school students to the Department of Computer Science.

## Technical skills

**Programming** Python, R, Java, SQL, JavaScript

**Frameworks** Pytorch, Tensorflow, Pandas, Git, Azure, Kubernetes

**Other** Linux, L<sup>A</sup>T<sub>E</sub>X

## Languages

**Portuguese** Native language

**English** Proficient

## Other Activities

- 2020 – 2023     **Escola de Jazz Luiz Villas-Boas (Hot Clube de Portugal)**  
Music Theory, Ear Training, Piano and Guitar courses