

# Gustavo Lösch do Amaral

Data Scientist

22 years old  
Porto Alegre - RS, Brazil  
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in gustavo-losch

## Education

2024 – 2027 **Bachelor's Degree in Data Science and Artificial Intelligence**, Pontifícia Universidade Católica do Rio Grande do Sul (PUCRS), Porto Alegre - RS

## Professional Experience

2026 – Present **Data Scientist**, Full Time, Pontifícia Universidade Católica do Rio Grande do Sul (PUCRS), Porto Alegre - RS

Research and Development project focused on the development and implementation of an agentic memory framework.

2025 **Data Scientist**, Internship, Pontifícia Universidade Católica do Rio Grande do Sul (PUCRS), Porto Alegre - RS

Research and Development project focused on implementing Large Language Models (LLMs) using RAG systems, RAG component optimization systems, and integrating predictive models into ERP software using machine learning.

2024 – Present **Undergraduate Research, Volunteer and Scholarship**, Pontifícia Universidade Católica do Rio Grande do Sul (PUCRS), Porto Alegre - RS

Research involving Alzheimer's detection using acoustic variables and speaker segmentation in Alzheimer's test audios. Participation in national academic conferences and national and international challenges.

2022 – 2025 **Consultant**, Freelance, Ponto Pesquisa e Consultoria, Porto Alegre - RS

Worked on market research projects focused on data processing, statistical analysis, and creating machine learning models. Carried out projects with the companies SBT-SC, CBP, and Solutis using techniques for time series prediction, topic discovery in free text, and sentiment analysis in free text.

## Awards

2024/2 **Academic Merit, PUCRS**

Academic Merit for obtaining a grade point average of 9.62 in 6 subjects taken during the semester.

2025/2 **Outstanding Work, 26th PUCRS Undergraduate Research Seminar**

2025/2 **Best Work in Exact Sciences and Engineering, 26th PUCRS Undergraduate Research Seminar**

Winner of the outstanding work and best work awards at the PUCRS Undergraduate Research Seminar. Work on speaker segmentation in Alzheimer's test audios, referenced in the Publications section.

2025/2 **Code Challenge Winner, 1st Regional School of Machine Learning and Artificial Intelligence (ERAMIA)**

Winning team of the ERAMIA Code Challenge in a task to predict sales success based on the conversation history between salespeople and customers.

## Key Skills

**Languages** Python, Java, SQL

**Data** Machine Learning (supervised, unsupervised, and deep), Natural Language Processing (NLP),

**Science** Data Preprocessing, Exploratory Data Analysis, Data Visualization, RAG

**Frameworks** Pandas, Polars, Numpy, Scikit-Learn, Flask, XGBoost, LightGBM, Pytorch, Streamlit, Dash, and TKInter, Matplotlib, Seaborn, Plotly, Threading

**Packages**

**Others** Linux, Git, Docker, Apptainer, Slurm, MongoDB, PostgreSQL, PGVector, FAISS

**Interpersonal** Good communication, Leadership, Teamwork, Transparency

## Publications and Presentations

- 2025 Gustavo Lösch do Amaral; Luan Dopke; Dalvan Jair Griebler; Luiz Gustavo Leão Fernandes. **Automated Audio Analysis for Identifying Interviewees in Alzheimer's Tests.** In: 26th PUCRS Undergraduate Research Seminar, 2025, Porto Alegre/RS. <https://editora.pucrs.br/edipucrs/acessolivre/anais/sic/assets/edicoes/2025/arquivos/188.pdf> (Presentation and Publication of Extended Abstract)
- 2025 Caio Madeira; Gustavo Amaral; Joao Marth; Luan Dopke; Mauricio Magnaguagno; Vitor Pires; Dalvan Griebler. **Grouping Peer-Review Comments Into Improvement Classes Using Unsupervised Learning.** In: Research Practice Discipline, 2025 , Porto Alegre/RS. (Class Presentation)
- 2025 AMARAL, Gustavo; DOPKE, Luan; AIRES, João Paulo; LIRA, Juliana Onofre de; HUBNER, Lilian Cristine; GRIEBLER, Dalvan. **Automatic Audio Segmentation in Patient Interviews for Alzheimer's Testing.** In: 1st REGIONAL SCHOOL OF MACHINE LEARNING AND ARTIFICIAL INTELLIGENCE OF THE SOUTH REGION (ERAMIA-RS), 2025, Porto Alegre/RS. Annals [...]. Porto Alegre: Brazilian Computer Society, 2025 . p. 272-275. DOI: <https://doi.org/10.5753/eramias.2025.16639>. (Presentation and Publication of the Article at the event)

## Languages

**Portuguese** Fluent in Portuguese

**English** Advanced in English

**Spanish** Intermediate in Spanish