



# LIANA AKOBIAN

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Austrian

**computational neuroscience - neural networks - neuroAI - machine learning - dynamical systems - modeling**

## ACADEMIC EXPERIENCE

### ÉCOLE NORMALE SUPÉRIEURE | RESEARCH INTERNSHIP

2025-

Group for Neural Theory. PI: Professor Alex Cayco-Gajic

Validation of a Schur Reordering Algorithm for finding interpretable representations within connectivity matrices of recurrent neural networks.

### UNIVERSITY OF VIENNA | MASTER THESIS

2023-2025

Zimmer Lab. PI: Professor Manuel Zimmer

To study the neural dynamics underlying C. elegans locomotion, I aligned 23 Calcium imaging recordings and built a 'canonical' neural manifold with PCA. I extended decomposed linear dynamical systems (dLDS) to disentangle intrinsic neural dynamics and control signals on the manifold

### UNIVERSITY OF VIENNA | RESEARCH INTERNSHIP

2022

Zimmer Lab. PI: Professor Manuel Zimmer

Using methods from functional data analysis, such as FPLSR, I identified individual neurons and time ranges from C. elegans Calcium imaging data that are highly predictive of aversive behavior upon elevated oxygen levels

### UNIVERSITY OF VIENNA | BACHELOR THESIS

2020

Neuroinformatics Lab. PI: Professor Moritz Grosse-Wentrup

Review and analytical comparison of frequency-based models (e.g. Bag of Words) and prediction-based models (Long Short-Term Memory) for computing Semantic Text Similarity.

## REFERENCES

Professor Alex Cayco-Gajic (École Normale Supérieure, Group for Neural Theory)

Professor Manuel Zimmer (University of Vienna)

Dr. Charles Fieseler (University of Vienna)

## EDUCATION

TU Vienna | Master of Science in Data Science

2025

KU Leuven | Erasmus Term in Artificial Intelligence

2023

University of Vienna | Bachelor of Science in Computer Science

2021

SKILLS

Programming: Python (advanced), Java, R, C++  
Frameworks: Docker, Ansible, Spark  
Libraries: PyTorch, Tensorflow, sklearn  
Other: Wandb (for MLOps), Latex  
Languages: German (native), English (fluent, C2 level), Armenian

NON-ACADEMIC EXPERIENCE

<b>GOOGLE DEVELOPER GROUP CO-ORGANIZER</b>	2024-2025
Co-organised Austria's biggest GDG chapter, including events and meetups related to Machine Learning and AI.	
<b>TU WIEN   BIG DATA ENGINEER</b>	2021-2023
Managed and tuned a big data cluster that was provided to academic and industrial researchers and helped them parallelize their programs for distributed processing. Also held courses and workshops about big data handling and processing. Automated cluster configurations using orchestration tools like Ansible.	
<b>SAP   HR TECHNOLOGY WORKING STUDENT</b>	2018-2020
Managed innovative technological projects such as Chatbots based on AI and knowledge-based systems for HR.	