

# ALEJANDRO GARCÍA CASTELLANOS

---

---

## EXPERIENCE

---

### Ph.D. Candidate

*AMLab (Amsterdam Machine Learning Lab), UvA*

Feb. 2024 – Current

*Amsterdam, Netherlands*

- Under the supervision of Erik Bekkers (UvA) and co-supervision of Daniël Pelt (ULEI)
- Generative models and active learning for shapes and segmentation

### Research Engineer

*RPL (Division of Robotics, Perception and Learning), KTH*

Mar. 2023 – Feb- 2024

*Stockholm, Spain*

- Under the supervision of Danica Kragic
- Equivariant representation learning in DL
- Metric learning in generative models
- Steiner tree problem in Hyperbolic geometry

### Trainee Internship

*MEDAL laboratory, CTB (Center of Biomedical Technology)*

Sep. 2020 – Jan. 2021

*Madrid, Spain*

- Application of information recognition algorithms in clinical notes
- Development of new techniques for the recognition of metrics, doses and numbers
- Fine-tuning a BERT model in breast and lung cancer's clinical notes

---

## EDUCATIONAL BACKGROUND

---

### MSc in Machine Learning

*KTH Royal Institute of Technology*

Sep. 2021 – Oct. 2023

*Stockholm, Sweden*

- Average grade: 4.00 GPA
- Thesis in Topological regularization and relative latent representations

### B.S. in Mathematics and Computing

*Universidad Politécnica de Madrid*

Sep. 2017 – Jul. 2021

*Madrid, Spain*

- Average grade: 9.78/10.0 (4.00 GPA)
- Best academic record of the ETSIINF (Higher Technical School of Computer Engineers) of the promotion 2020/2021
- Matriculation with Honors in 29 courses
- Three Scholarships for Academic Excellence granted by the Community of Madrid
- Thesis in Robustness of Persistent Homology: the Stability Theorem

### Secondary Education and Baccalaureate

*Colegios Ramón y Cajal*

Sep. 2011 – Jul. 2017

*Madrid, Spain*

- University addition mark (EvAU): 13.03/14.0

---

## COMPUTER AND PROGRAMMING KNOWLEDGE

---

**Programming:** Python, Java, C, R, SQL, MATLAB, Maple, Prolog, Bash

**ML:** Pytorch, Pytorch Lightning, Tensorflow, (a bit of) JAX

**Computer:** L<sup>A</sup>T<sub>E</sub>X, Git, Microsoft Office, Keynote, Pages (Apple), Adobe Photoshop, Adobe Lightroom

---

## LANGUAGES

---

**English:** Advanced level (C1), CAE by **Cambridge English**

**Spanish:** Native language

**German:** Low Beginner Level

---

## OTHER PERSONAL ASPECTS

---

Driving License: B  
Own vehicle (in Spain)

I am passionate about learning new applications of geometric, topological, and algebraic methods to analyze or improve the methods of machine learning

Stockholm, February 6, 2024

Alejandro García Castellanos