

# Margarita Geleta

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## EDUCATION

### UNIVERSITY OF CALIFORNIA, IRVINE

PH.D. IN COMPUTER SCIENCE

Jun 2026 | Irvine, CA

Current GPA: 4.0 / 4.0

### POLYTECHNIC UNIVERSITY OF CATALONIA

B.Sc. IN DATA SCIENCE AND ENGINEERING

Jun 2021 | Barcelona, Spain

GPA: 7.81 / 10.0

### IMMACULADA CONCEPCIÓ HIGH SCHOOL

BEST STUDENT OF MY PROMOTION

Jun 2017 | Spain

GPA: 9.55 / 10.0

Finished with Honors

## LINKS

Github:// [margaritageleta](#)

LinkedIn:// [margarita-geleta](#)

Website:// [margaritageleta.github.io](#)

GScholar:// [Margarita Geleta](#)

## COURSEWORK

Artificial Intelligence • Scientific Computing • Machine Learning • Deep Learning • Data Analysis • Mathematical Optimization • Parallelism and Discrete Systems • Database Systems • Information Visualization • Information Retrieval and Analysis • Algorithmics • Statistics

## SKILLS

**Programming:** C++ • Python • R • Dart

**Scripting:** Javascript • Bash

**Markup:** HTML5 • CSS3

**Frameworks:** Django • Flutter • PyTorch

**Databases:** PostgreSQL • SQLite

## LANGUAGES

English **Proficient**

Spanish **Native**

Catalan **Native**

Russian **Native**

## RESEARCH & EXPERIENCE

### STANFORD UNIVERSITY | FULL-TIME RESEARCH ASSISTANT

Jun 2021 – Present | Stanford, CA

- Explored novel Deep Learning techniques for genomic data with applications in dimensionality reduction, compression, classification and data simulation.
- Explored *Variational* and Discrete-Space (*Multi-Bernoulli* and *Vector-Quantized*) Autoencoders for the purpose of *Single Nucleotide Polymorphisms* (SNP) data compression and developed a complete pipeline for SNP datasets compression.

### IMAGE PROCESSING GROUP (GPI) | RESEARCHER

Sept 2020 – Mar 2021 | Barcelona, Spain

- Led pioneering research in multimodal deep steganography for hiding images within audio (within earshot hearing range).
- Investigated Deep Learning architectures for Audio Steganography and trained an Audio Autoencoder using *Short-Time Cosine Transform* for *Audio Feature Extraction* and implemented classic Audio Steganography methods from the psychoacoustic approach – *LSB algorithm*, *Phase Coding* and *Echo Hiding*.

### JEDI JUNIOR ENTERPRISE | MACHINE LEARNING INSTRUCTOR, FRONT-END DEVELOPER, EXBO MEMBER

Sept 2019 – Sept 2021 | Barcelona, Spain

- Directed the organization of JEDI Academy courses and organized bimonthly workshops on Tech topics with +20 attendees at the *Barcelona School of Informatics* (FIB). Ran introductory R language workshop.
- Adapted the course for online teaching due to the coronavirus pandemic and tutored students through online platforms.
- Adapted materials for a blind student and guided them throughout the course.

### FIB VISIONA | PRESIDENT & MAIN ORGANIZER

Oct 2018 – Jul 2021 | Barcelona, Spain

- Co-founded FIB Visiona association, in charge of connecting students of the Polytechnic University of Catalonia with cutting-edge Tech companies.
- Organized 3 editions of the career fair with +200 attendees in each, raising €135,000 in sponsorships and donating €22,760 in philanthropy.

## AWARDS

- 2021 CS Department Dean's Fellowship (outstanding research potential).
- 2021 Fellowship for CS Ph.D. program by the Department of CS, UC Irvine.
- 2020 Nominated for the *Dona TIC Award* (2nd place), STEM role model.
- 2017 Finished High School with Honors.

## PUBLICATIONS

- [1] M. R. Costa-jussà, R. Creus, O. Domingo, A. Domínguez, M. Escobar, C. López, M. Garcia, and **M. Geleta**. Mt-adapted datasheets for datasets: Template and repository. <https://arxiv.org/abs/2005.13156>, 2020.
- [2] **M. Geleta**, D. M. Montserrat, C. D. Bustamante, X. G. i Nieto, and A. G. Ioannidis. Unsupervised learning with applications in genomics. Submitted, 2021.
- [3] **M. Geleta**, C. Puntí, K. McGuinness, J. Pons, C. Canton, and X. G. i Nieto. Pixinwav: Residual steganography for hiding pixels in audio. <https://arxiv.org/abs/2106.09814>, 2021.