Margarita Geleta

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Education

University of California, Berkeley   **Berkeley, CA**
Ph.D. in Computer Science   Current – May 2026
M.S. in Computer Science   August 2022 – December 2024
Major in Artificial Intelligence; Minors in Human-Computer Interaction & Business Administration.
Awards: Samuel Silver Memorial Scholarship, Sigma Xi Grant-in-Aid-of-Research, H2H8 research grant.

University of California, Irvine   **Irvine, CA**
Ph.D. in Computer Science (transferred)   September 2021 – June 2022
Awards: CS Department Dean's Fellowship for outstanding research potential.

Polytechnic University of Catalonia   **Barcelona, Spain**
B.S. in Data Science and Engineering   September 2017 – June 2021

Experience

Dolby Laboratories, Inc., *Advanced Technology Group* (ATG)   **San Francisco, CA**
Sound Tech R&D PhD Intern   May 2024 – August 2024
- Developed an extended reality (XR) application for spatial audio manipulation and deployed on Apple Vision Pro.
- Quantified the benefits of free-hand spatial audio manipulation in XR running an HCI experiment with +25 users.
- Reported by some as "a whole new experience" and that the level of immersion was something they "never felt in Dolby Atmos".

Amazon.com, *Home Innovation Team* (HIT)   **Seattle, WA**
Applied Scientist II Intern   May 2023 – August 2023
- Investigated image-to-image translation methods for novel view synthesis.
- Curated a new dataset of 430 culturally-diverse images for benchmarking GAN inversion and image editing methods.

Amazon.com, *Home Innovation Team* (HIT)   **Seattle, WA**
Applied Scientist II Intern   June 2022 – August 2022
- Worked with large-scale generative models, GAN inversion, and image editing with GANs.
- Contributed to the development of the state-of-the-art model for GAN inversion ("clone" algorithm) [2].

Stanford University, *School of Medicine* (Stanford DBDS)   **Palo Alto, CA**
Research Assistant   June 2021 – Current
- Introduced algorithms designed to analyze the genomes of diverse populations, and designed several generative models for artificial genotypes with the aim to augment populations underrepresented in genetic research and reinforce fairness [4, 3].

Skills

Technical: (programming) Python, C++, C#, C, R; (scripting) Javascript, Bash; (markup) HTML5, CSS3; (frameworks) Unity3D, PyTorch, Flutter; (databases) PostgreSQL, SQLite, Neo4j.
Language: English (proficient), Spanish (native), Catalan (native), Russian (native).

Selected Publications

[1] **M. Geleta***, Cristina Puntí, Kevin McGuinness, Jordi Pons, Cristian Canton, and Xavier Giró i Nieto. PixInWav: *Residual Steganography for Hiding Pixels in Audio*. International Conference on Acoustics, Speech and Signal Processing (ICASSP), 2022.

[2] Qianli Feng*, Raghudeep Gadde, Viraj Shah, **M. Geleta**, Pietro Perona, and Aleix M. Martinez. *Near Perfect GAN Inversion*. Under Legal review (further information under request), 2023.

[3] Míriam Barrabés*, Daniel Mas-Montserrat*, **M. Geleta**, Xavier Giró i Nieto, and Alexander G. Ioannidis. *Adversarial Learning for Feature Shift Detection and Correction*. In Neural Information Processing Systems (NeurIPS), 2023.

[4] **M. Geleta***, Daniel Mas Montserrat, Carlos D. Bustamante, Xavier Giró i Nieto, and Alexander G. Ioannidis. *Autoencoders for Genomics*. (Submitted. Awaiting decision), 2024.