

Gabriel Pérez S



About Me

I am Gabriel Pérez, graduated with honors in Systems and Computing Engineering from the National University of Colombia. With that degree and 2 years of research experience, I have gained extensive knowledge and experience in the field of computer science. During my undergraduate thesis, I collaborated with King Abdullah University of Science and Technology in Saudi Arabia, where I worked on advanced research projects and collaborated with leading experts in the field. My research on certified robustness for 3D point cloud classifiers resulted in a publication at CVPR 2022.

Over the past few years, I have been doing my PhD and working as a professional on research projects at CINFONIA, a center at the University of Los Andes led by Pablo Arbeláez. My current research focuses on 3D and 4D reconstructions.

Contact

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Education

- Systems and Computing Engineer, honors graduate, National University of Colombia.
- Specialization in Deep Learning, DeepLearning.AI, Coursera.

Awards and distinctions

- Eight tuition fee waivers for academic excellence and two honors enrollments for the highest departmental GPA.
- *Publication as first author in CVPR 2022 (Computer Vision and Pattern Recognition) 3DeformRS: Certifying Spatial Deformations on Point Clouds.*

Idiomas

- Spanish - Nativo
- English - C1 (academic certified)
- French - A2

Relevant Experience

Research projects professional, Universidad de Los Andes, 2022 – Present

Since the second semester of 2022, I have been a research assistant at CINFONIA under the supervision of Professor Pablo Arbeláez. In this position, I have collaborated on research projects focused on three-dimensional reconstruction using neuronal radiance fields, with special emphasis on geometric precision and the calculation of signed distance functions (SDF) of the object to be reconstructed. As well as Dynamic Gaussian splatting for 4D scene reconstruction. These projects have been worked on in collaboration with Meta Reality Labs, King Abdullah University of Science and Technology and Google.

Visiting Student Researcher, King Abdullah University of Science and Technology, 2021-2021

My undergraduate thesis was carried out through the Visiting Student Research Program (VSRP) at King Abdullah University of Science and Technology (KAUST). During one semester, I was in Saudi Arabia, working in the Image and Video Understanding Laboratory (IVUL) led by the renowned researcher Bernard Ghanem, with Fabio Augusto Gonzalez, a faculty member from the National University of Colombia (UNAL), as my thesis director. I developed my own research project with Silvio Giancola as my direct supervisor, and various PhD students started being interested in working with me as the project developed (Motasem Alfarra, Juan Camilo Pérez).

This research resulted in a scientific paper that was accepted and published at one of the most important computer vision conferences in the world, CVPR 2022.