

Sara Rojas

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CAREER PROFILE

Ph.D. candidate in Computer Vision at KAUST, under the supervision of Professor [Bernard Ghanem](#). Experience in neural rendering, 3D reconstruction, 3D-based recognition tasks, and diffusion models. Skilled at structuring all stages of research projects, from ideation and experimentation to writing with a proven track record of publications in top-tier conferences. Successful in performing in intense environments and cross-culture collaborations.

EDUCATION

2020 - 2024	Ph.D.	Electrical and Computer Engineering — KAUST	(GPA: 4.0/4.0)
2017 - 2018	M.Sc.	Biomedical Engineering — Universidad de los Andes	(GPA: 4.6/5.0)
2013 - 2016	B.E.	Electronics Engineering — Universidad de los Andes	(GPA: 4.07/5.0)

WORK EXPERIENCE

Research Intern — Adobe Inc. May 2023 - Sep 2023
Worked on 3D Scene Editing task using diffusion models (ControlNet) and NeRF representations. Supervised by [Kalyan Sunkavalli](#) (Principal Research Scientist).

Research Intern — KAUST Jul 2019 - Dec 2019
Worked on adversarial attacks for point clouds. Paper published at ECCV. Supervised by Professor [Bernard Ghanem](#) at the [Image and Video Understanding Lab](#).

Research Intern — University of Southern California Jun 2018 - Aug 2018
Worked with the U.S. Army Research Laboratory, researching automated image segmentation methods to analyze the vulnerability of human organs. Initiated, wrote, and delivered a review on biomedical image segmentation. Supervised by [Autumn Kulaga](#) at the [Institute for Creative Technologies](#).

Computer Vision Engineer — Barbara & Frick May 2019 - Jun 2019
Structured the first stage of a project for leveraging state-of-the-art algorithms for detecting, counting, and recognizing grocery items.

Teaching Assistant — Universidad de los Andes Jul 2017 - Jun 2019
Developed supplementary material to course lectures, designed lab activities, provided feedback on course projects, and participated in student evaluations. Courses: Introduction to Electrical and Electronics Engineering, Circuit Fundamentals, IT in Organizations, and Ironman Technology.

SELECTED PUBLICATIONS

Jinjie Mai, Wenxuan Zhu, **Sara Rojas**, Jesus Zarzar, Abdullah Hamdi, Guocheng Qian, Bing Li, Silvio Giancola, and Bernard Ghanem (2024). “TrackNeRF: Bundle Adjusting NeRF from Sparse and Noisy Views via Feature Tracks”. In: *ECCV*.

Sara Rojas, Julien Philip, Kai Zhang, Sai Bi, Fujun Luan, Bernard Ghanem, and Kalyan Sunkavalli (2024). “DATeNeRF: Depth-Aware Text-based Editing of NeRFs”. In: *ECCV*.

Sara Rojas, Jesus Zarzar, Juan C. Perez, Artsiom Sanakoyeu, Ali Thabet, Albert Pumarola, and Bernard Ghanem (2023). “Re-ReND: Real-time Rendering of NeRFs across Devices”. In: *ICCV*.

Jesus Zarzar*, **Sara Rojas***, Silvio Giancola, and Bernard Ghanem (2022). “SegNeRF: 3D Part Segmentation with Neural Radiance Fields”. In: *ArXiv:2211.11215*.

Abdullah Hamdi, **Sara Rojas**, Ali Thabet, and Bernard Ghanem (2020). “AdvPC: Transferable Adversarial Perturbations on 3d Point Clouds”. In: *ECCV*.

SKILLS AND INTERESTS

Software Skills: Python, Tensorflow, PyTorch, MATLAB, and GLSL

Languages: Spanish (Native), English (Professional Working Proficiency)

Interests: Wall and rock climbing, reading non-fiction books, gyming and travelling.