# Guillaume Jeanneret Sanmiguel

*Curriculum Vitae*

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## About me

**Summary** I am a biomedical engineer from the Universidad de los Andes, Colombia. I received my Master's degree in Biomedical Engineering from the Universidad de los Andes. I've worked as a Graduate Research Assistant in the CinfonIA research group research group led by Pablo Arbeláez. Currently, I am a third year Ph.D. student at the Greyc Laboratory under the supervision of Dr. Frédéric Jurie and Dr. Loïc Simon. My research experience spans the area of computer vision, with a focus on, but not limited to, explainable AI. In addition, I have served as a reviewer for internationally recognized conferences (e.g., CVPR, I/ECCV, or WACV) and the TPAMI journal.

**Areas of Interest** Deep Learning, Computer Vision, Explainable AI, Counterfactual Explanations.

**Nationalities** Colombian and Swiss

## Education

08/21–08/24 (Expected) **PhD Student**, Unicaen, *GREYC Laboratory*.

2018–2020 **M.Sc. in Biomedical Engineering**, *Department of Biomedical Engineering, Universidad de los Andes, Bogotá, Colombia*.

2013–2018 **B.Sc. Biomedical Engineering**, *Department of Biomedical Engineering, Universidad de los Andes, Bogotá, Colombia*.

2018 **Minor Mathematics and Computational Mathematics**, *Department of Mathematics, Universidad de los Andes, Bogotá, Colombia*.

2013 **Maturité Suize Degree (Math and Physics emphasis)**, *Helvetia School, Bogotá, Colombia*.

2013 **High School Degree**, *Helvetia School, Bogotá, Colombia*.

## Published Papers

WACV 2024 Text-to-Image Models for Counterfactual Explanations: a Black-Box Approach

ICCVW 2023 BoDiffusion: Diffusing Sparse Observations for Full-Body Human Motion Synthesis

CVPR 2023 Adversarial Counterfactual Visual Explanations

ACCV 2022 Diffusion Models for Counterfactual Explanations (Oral)

Scientific Reports 2022 Smart Pooling: AI-powered COVID-19 testing

ICCVW 2021 A Hierarchical Assessment of Adversarial Severity (Best Paper Award)

ICCVW 2021 Enhancing Adversarial Robustness via Test-time Transformation Ensembling

CVIU 2021 MAIN: Multi Attention Instance Network.

ECCV 2020 Gabor Layers Enhance Network Robustness

## Research Projects and PrePrints

MTBI Project — The Dynamics of Math Anxiety as it is Transferred through Peer and Teacher Interactions.

M.Sc. Thesis — MINT: Multi Instance Network, an Efficient Framework for Video Object Segmentation.

## Internships

Summer 2017 — MTBI – Research Experience for Undergraduates at the Arizona State University

## Experience

08/21–Today — PhD Student at GREYC Laboratory

01/18–07/21 — Researcher at the Biomedical Computer Vision Group.

01/20–11/20 — Graduate Research Assistant at the Universidad de los Andes

01/19–12/19 — Graduate Research Assistant: Video Analysis

- Research focused on the task One-Shot Video Object Segmentation.
- International Conference paper writing.

07/18–12/18 — Graduate Teaching Assistant: Processing and Image Analysis

- Laboratory Instructor - 80 students in charge.
- Designing and grading laboratory guides.
- Final project grading.

01/18–06/18 — Graduate Teaching Assistant: Scientific Programming

- Laboratory Instructor - 65 students in charge.
- Designing and grading laboratory guides.
- Final project grading.

07/17–12/17 — Undergraduate Teaching Assistant: Processing and Image Analysis

- Helping assistant for the lectures.

01/16–12/17 — Undergraduate Teaching Assistant: Accompaniment Program

- Helping first semester students with courses such as: Differential Calculus, Programming, Physics, Chemistry and personal development.

07/15–12/15 — Undergraduate Teaching Assistant: Algorithm and Object Oriented Programming

- Grading projects and assisting with laboratory Java tutorials.

## Technical Skills

Programming — Python, MatLab

Software — LaTeX, Microsoft Office

ML Framework — Pytorch, Sklearn

## Languages

Spanish — Native

English — Fluent

French — Fluent (Swiss *Maturité*)