Guillaume Jeanneret Sanmiguel

Curriculum Vitae

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About me

Summary I am a third-year PhD student at the GREYC Laboratory under the supervision of Dr. Frédéric Jurie and Dr. Loïc Simon. My research expertise spans a wide area of computer vision, including counterfactual explanations, adversarial robustness, and video object segmentation. Currently, I am focusing my PhD studies on the research branch of explainable AI. Previously, I worked as a Graduate Research Assistant in the CinfonIA research group research group, led by Pablo Arbeláez. Additionally, I have reviewed papers for internationally recognized conferences such as CVPR, ICCV, ECCV, WACV, and the TPAMI journal since 2021.

Areas of Interest Deep Learning, Computer Vision, Explainable AI.

Nationalities Colombian and Swiss

Education

08/21–08/24 (Expected) **Computer Science PhD Student**, *Unicaen, ENSICAEN, GREYC Laboratory*, Caen, France.

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.

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

ICCVW 2021 A Hierarchical Assessment of Adversarial Severity.

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.

Experience

08/21–Today — Computer Science PhD Student at GREYC Laboratory, Caen, France

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

01/19–12/20 — Graduate Research Assistant (Universidad de los Andes, Bogotá, Colombia)

07/18–12/18 — Graduate Teaching Assistant: Image Processing and Analysis (Universidad de los Andes, Bogotá, Colombia)

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

01/18–06/18 — Graduate Teaching Assistant: Scientific Programming (Universidad de los Andes, Bogotá, Colombia)

- 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 (Universidad de los Andes, Bogotá, Colombia)

- Helping assistant for the lectures.

Summer 2017 — MTBI – Research Experience for Undergraduates (Arizona State University, Arizona, USA)

01/16–12/17 — Undergraduate Teaching Assistant: Accompaniment Program (Universidad de los Andes, Bogotá, Colombia)

- 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 (Universidad de los Andes, Bogotá, Colombia)

- Grading projects and assisting with Java tutorials.

Awards and Achievements

Adversarial Robustness in the Real World ICCV 2021 Workshop - Best Paper Award was given to the paper titled *A Hierarchical Assessment of Adversarial Severity*

ACCV 2022 Oral Presentation: *Diffusion Models for Counterfactual Explanations*

Languages

Spanish — Native

English — Fluent

French — Fluent (Swiss *Maturité*)