

Corentin GAUTIER

Post-doctoral Researcher at LASTIG / IGN

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Professional Experience

Post-doctoral Researcher

LASTIG / IGN

June 2025 – Present Paris / France

Research on a system for outdoor augmented reality using GeoWebXR.

PhD in Computer Science

LIRIS UMR 5202 CNRS – Université Lumière Lyon 2

Nov 2022 – May 2025 Lyon / France

Thesis: Dynamic, virtual and tangible representations of the city. Funded by LabEx IMU.

Research Engineer in Software Development

LabEx IMU – LIRIS

Nov 2020 – Oct 2022 Lyon / France

Development of mediation tools for the TIGA project: "Industry (re)connected and integrated with its territory and inhabitants", coordinated by the Métropole de Lyon.

Education

Master's Degree – Video Game Programming

Université Lumière Lyon 2

Sept 2018 – May 2020 Lyon / France

Final project: Development of a video game on Unreal Engine – AI programmer.

Bachelor's Degree – Video Game Design

Université du Québec à Chicoutimi

Aug 2017 – May 2018 Chicoutimi / Canada

Final project: Creation of a 3D scene with integration of a 3D model in WebGL.

Scientific Outreach

Semaine de l'anthropocène "À quoi rêvent les maquettes?": Development of an augmented scale model of the Gratte-ciel district, made available for multidisciplinary students. 23–27/01/2023

Festival pop'sciences 2023: Development of a hybrid scale model of the Gier valley. 12–14/05/2023

PEPR Sustainable Cities – Innovative Buildings: Inauguration of the PEPR in Paris. Presentation of the mobile augmented scale model device with a Lego model of the Gratte-Ciel district. 24/05/2023

Musée des confluences – The Science of Water: Collaboration with a student from H2O'Lyon on a projection of their final project on the augmented table. 20/01/2024

"What do scale models dream of?": Mediation workshop at the Learning Center on the Bron campus. Guided student groups and set up the augmented scale model device. 22–25/01/2024

Seminars

- Challenges GéoDataDays 2022: Presentation of UD-SV, Multi-dimensional urban data exploration platform – First jury prize
- MAGIS-AP3D: Presentation of the article on multimedia integration in a 3D city model for better understanding of territories
- GDR IG-RV: Presentation of the mobile augmented scale model device featuring the Gratte-Ciel district
- IMU Days: Event organization (welcoming guests, workshop participation, etc.). Participation in the doctoral roundtable – Multidisciplinary theses at LabEx IMU
- "Journée de la recherche IGN 2026": Presentation of the STAG, the post-doctoral research work made at the LASTIG

Responsibilities

- PhD student representative at ED 512 Info/Maths
- Head of the augmented scale model device at LIRIS
- Involvement in VCity project events (extra-lab events, weeklies)

Supervision

Lab-XP: Research opening project (M2 GAMAGORA: Video Game Programming, Lyon 2) – DatAgora

POM: Master orientation project (M1: Computer Science, Lyon 1) – Ville Unity

ING2: Research project (2nd year of engineer, Geodata Paris) – LidarHD to Lego

WPI: Worcester Polytechnic Institute (USA engineering student profile) – Beyond Lego

Teaching

GAMAGORA LP Infographiste: Introduction to programming. Blender / video game programming in Unity. (40h)

GAMAGORA Master 2: Geometric modelisation / virtual world. (40h)

Award

1st jury prize at Challenges GéoDataDays 2022

Research Project Involvement

TIGA Action 14: Industry (re)connected and integrated with its territory and inhabitants – PhD student in computer science (Coordinator: Métropole de Lyon)

CityFab: supporting local authorities near the various campuses of Gustave Eiffel University in their transition processes through action research – Post-doctoral position (LASTIG/IGN)

Publications

[1] Gautier, C., Delanoy, J., & Gesquière, G. (2022). **INTEGRATING MULTIMEDIA DOCUMENTS IN 3D CITY MODELS FOR A BETTER UNDERSTANDING OF TERRITORIES**. ISPRS Annals of Photogrammetry, Remote Sensing & Spatial Information Sciences, 10.

[2] Colin, C., Gautier, C., Vinasco-Alvarez, D., Delanoy, J., Gesquière, G., Samuel, J., ... & Marnat, L. (2023). **UD-SV: Plateforme d'exploration de données urbaines à n-dimensions—Espace, Temps, Thématiques**. Mappemonde. Revue trimestrielle sur l'image géographique et les formes du territoire, (135).

[3] Gautier, C., J. Delanoy, and Gilles Gesquière. "Representation of urban geometry evolution through space-time cube." 2023 27th International Conference Information Visualisation (IV). IEEE, 2023.

[4] Marnat, L., Gautier, C., Colin, C., & Gesquière, G. (2022). **PY3DTILERS: AN OPEN SOURCE TOOLKIT FOR CREATING AND MANAGING 2D/3D GEOSPATIAL DATA**. ISPRS Annals of Photogrammetry, Remote Sensing & Spatial Information Sciences, 10.

[5] Gautier, C. Le Bihan, Johanna Delanoy, and Gilles Gesquière. "Evolutive 3D Urban Data Representation through Timeline Design Space." *Computer Graphics Forum*. Vol. 43. No. 7. 2024.

[6] Gautier, C. (2025). *Représentations dynamiques, virtuelles et tangibles de la ville* (Doctoral dissertation, Université Lumière-Lyon II).

[7] Gautier, C., Brédif, M. (2026). **STAG: System for outdoor Augmented reality using GeoWebXR** ISPRS Annals of Photogrammetry, Remote Sensing & Spatial Information Sciences.