

THOMAS CHAMBON

Ph.D. in computer science, AI / Data science research engineer

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RELEVANT WORK EXPERIENCE

Research Engineer : Image segmentation based on graph and GNN methods

L3i, La Rochelle University

Sept 2023 - Dec 2024

La Rochelle, France

- Improving image segmentation using community detection in graphs.
- Benchmarking of different community detection methods.
- Tests on a range of reference datasets.
- Keywords: Image segmentation, Community Detection, Graph Neural Networks

Research member in ECOMOB Project

L3i, La Rochelle University

Oct 2019 - Oct 2023

La Rochelle, France

- Measuring the effects of information complexity on urban mobility intentions and behaviors. Multidisciplinary collaboration with teams in marketing and neuroscience.
- Design and development of a mobile application (iOS / Android) for tracking home-workplace travel and calculating the user's carbon footprint (CO2e). Application deployed to 1,000 users.
- Design of an eye-tracking study to analyze the choice process between different images of different complexity.
- Supervision of an intern in the Computer Science on the development of an "information table" experimental platform (marketing experiments).
- Keywords: Urban mobility, Eco-sustainable behavior, Algorithmic information theory, Mobile self-tracking applications, Sustainable information systems.

Teaching Assistant in Computer Science

La Rochelle University

Oct 2019 - Oct 2023

La Rochelle, France

- Courses: Advanced object programming, Parallel development, GPU computing, Mobile development.
- Software engineering & quality, Project management.
- Database modeling, Big Data systems, Datavisualization.

Chatbot and AI Analyst Programmer

CGI

Mar 2018 - Aug 2019

Niort, France

- Development of face detection and tracking solutions for insurance companies
- Development of conversational assistant solutions for insurance companies.

RESUME OBJECTIVE

"I have a PhD in computer science, and would like to share my knowledge in the field of Machine Learning and data analysis. I'm looking to use my multidisciplinary skills to help a research team tackle innovative challenges."

CERTIFICATIONS



Scientific integrity in research
FUN MOOC



SecNumacadémie
ANSSI MOOC Cybersécurité



Green IT
Green IT club Certification
(2016-000080)

SKILLS

Concerned

Autonomous

Learning ability

Data analysis (Python, Pandas, Numpy)

Data visualization (Matplotlib, Tableau)

Machine Learning (XGBoost, Auto-sklearn)

Deep Learning (PyTorch, PyTorch Lightning)

Server deployment (Docker, SLURM, Apptainer)

Mobile development (Android/iOS)

Marketing

Neurosciences

Project management

LANGUAGES

French

English

German



PUBLICATIONS

Journal Articles

- T. Chambon, J.-L. Guillaume, and J. Lallement, "Information complexity ranking: A new method of ranking images by algorithmic complexity," *Entropy*, vol. 25, no. 3, 2023, ISSN: 1099-4300. [Online]. Available: <https://www.mdpi.com/1099-4300/25/3/439>.

Conference Proceedings

- T. Chambon, U. Soulat, J. Lallement, and J.-L. Guillaume, "L'effet de la complexité visuelle de l'information sur l'intention et le comportement de mobilité urbaine," in *INFORSID*, 2024. [Online]. Available: <https://hal.science/hal-04649625v1>.
- T. Chambon, U. Soulat, J. Lallement, and J. Guillaume, "The effect of visual information complexity on urban mobility intention and behavior," in *RCIS 2023, Proceedings*, 2023. [Online]. Available: https://doi.org/10.1007/978-3-031-33080-3%5C_27.

EDUCATION

Ph.D. in Computer Science

La Rochelle University

 Oct 2019 – Aug 2023

MS.C. in Computer Science

La Rochelle University

 Sept 2017 – Jun 2019

REFEREES

Prof. Jean-Loup Guillaume

 L3i, La Rochelle University

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Prof. Jeanne Lallement

 NUDD, La Rochelle University

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Assoc. Prof. Mickaël Coustaty

 L3i, La Rochelle University

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