



Profil

contact@romainthomas.net

<https://romainthomas.net>

GitHub: [romain894](#)

Driver's license

First-aid worker

Skills



Languages

Python: Pandas, Numpy,
Dash, pytest, package
publication, Sphinx
C/C++
Bash



Sustainability

Socio-ecological regime
shifts and tipping points
LCA , CSR
Eco conception



IOT

STM32
CubeIDE
KiCad



Tools

GNU/Linux
Docker Compose
Elasticsearch
TensorFlow
Git, GitHub actions
LaTeX: beamer, tikz,
creation of templates



Prototyping

Electronic circuit design
3D printing
CNC routing
OpenSCAD
Arduino

Languages

French: native
English: fluent
German: basics
Swedish: basics

Romain Thomas

Data analyst for bibliometrics and Natural Language Processing at the
Université Paris-Saclay Library's.

Professional experience

Data analyst for bibliometrics and NLP



2025 - now

Université Paris-Saclay, France

Developing tools such as databases and methodologies that leverage open data and open-source code for bibliometric analysis to support open-science initiatives. Key projects include building an Elasticsearch-based database to map the University's research publications, enhanced with text vectorization and topic modelling. Additional tasks consist on developing and conducting bibliometric analyses and generating comprehensive reports to support research evaluation and strategic decision-making.

Research assistant following an internship



2023 - 2024

Stockholm Resilience Centre, Sweden

Adding case studies from the scientific literature to the [Regime Shift DataBase](#) and refactoring the database: creation of a form and an API, definition of the data structure with JSON schema and migration of the existing data. Exploring machine learning models and topic modelling techniques to classify articles about regime shifts.

Creation of a Python library and a web app to download, analyse and plot metadata of scientific articles from OpenAlex. The project is open-source and on [GitHub](#) and [PyPI](#). Contributions to the Python library for OpenAlex [PyAlex](#).

Junior engineer following an internship



2021 - 2022

PhaseLab Instrument, France

Engineering and prototyping small SPR systems (Surface Plasmon Resonance) : image and signal processing (hardware, firmware (C) and software development (Python)), working with researchers and PhD students.

Education

Master in Sustainability



2021 - 2023

University of Technology of Troyes, France

Engineering and management of the environment and the sustainable development

Life cycle assessment and eco conception of a solar panel installation, Corporate Social Responsibility pre-diagnosis in a local company, material flow analysis, general knowledge in green IT and low tech.

Networks and telecommunications



2017 - 2023

University of Technology of Troyes, France

Engineering degree specialized in embedded systems and internet of things

Skills development in computer science and embedded electronics (programming, circuit board design, sensor networks...), Linux systems, networks and signal processing.

Publication

André Pinto da Silva, Nielja Knecht, **Romain Thomas**, Romi Lotcheris, Beatrice Crona, and Juan Carlos Rocha. "[Challenges and opportunities when assessing exposure of financial investments to ecosystem regime shifts](#)". In: *Current Opinion in Environmental Sustainability* 74 (2025)

Student engagement

Elected student



2020 - 2022

Governing boards of the UTT and the UTT Foundation

Discussing and voting the strategy and the budget of the institution. In relation with each stakeholder, we helped to develop the European project EUt+ and argued for more gender equality and sustainability in both research and teaching.

Technical expert for student organizations



2017 - 2021

Helping students to realize their projects in the maker space of the university. I made the electronics and programming of the robots for the French robotic cup. As well as for IT, I became a referent for questions and repairs relating to 3D printing. During this time, I participated to develop the maker space by finding funds and managing the organization as president.

Projects

Bibliographic analysis platform



2024

A framework to explore and analyse scientific articles: from PDF files, extract the full-text, enrich the metadata with OpenAlex, and add each paragraph to an Elasticsearch database. Kibana is used to provide the web interface. Fully based on open-source software and available on [GitHub](#).

Board member of UTT alumni



2023 - 2025

Involved in the project “[pass mobilité plus](#)”, aiming to facilitate low carbon mobility for students. We are providing Interrail passes to students and helping them with the trip planning.