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

Research assistant at the Stockholm Resilience Centre, working on the Regime Shift DataBase and OpenAlex Analysis, searching for a new opportunity starting from October.

Professional experience

Research assistant following an internship

🗓️ 2023 - Now *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.

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 - 2024 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.