

### Contact

mael.madon@m4x.org  
+33 (0)6 02 32 68 73  
maelmadon.github.io/

### Address

Bâtiment CHIRICO  
110 gd-rue st-Michel  
31400 Toulouse  
France

### Skills

Autonomous,  
available, efficient,  
quick learner

### Programming

Python, C++, LaTeX,  
Shell

### Software

Ubuntu, Git, VSCode,  
Windows, Microsoft  
Office, Google suite

### Languages

French (native)  
English (advanced)  
Swedish (intermed.)  
Spanish (intermed.)  
German (basic)

### Interests

Green IT  
Sustainability  
Open Source  
  
Sports: climbing,  
hiking, caving  
Music: choir singing,  
guitar

# Maël Madon

## Researcher in Computer Science

### About Me

I am looking for a postdoc starting in September 2025.

## Education

### 2024, PhD in Computer Science

Université de Toulouse (Toulouse, FRANCE), IRIT laboratory  
Thesis title: “Digital Sufficiency in Data Centers: Studying the Impact of User Behaviors”  
Thesis supervisors: Georges Da Costa and Jean-Marc Pierson  
Financed by AMX doctoral fellowship from École Polytechnique

### 2021, M.Eng. in Computer Science

KTH Royal Institute of Technology (Stockholm, SWEDEN)  
Thesis title: “Developing a Parameterized Embodied Emissions Calculator for telecommunication networks equipment (PEEC)”  
Thesis supervisors: Daniel Pargman (KTH) and Pernilla Bergmark (company Ericsson)

### 2021, École Polytechnique’s diploma

École Polytechnique (Paris, FRANCE)  
France’s leading school of Science and Engineering

## Research Experience

### May - Jun24, research assistant

Université de Toulouse (Toulouse, FRANCE), IRIT laboratory  
International collaboration with the Barcelona Supercomputing Center  
Co-coordination of a working group from French research collective Labo1point5  
Co-supervised intern Ambre Liabat

### Apr21 - Apr24, PhD student

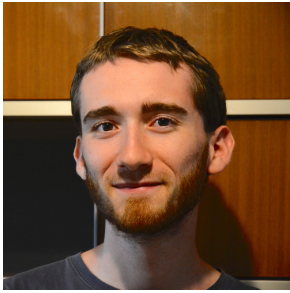
Université de Toulouse (Toulouse, FRANCE), IRIT laboratory  
Modeling and simulation of “digital sufficiency behaviors” for data center users [C4, J1]  
Active participation in ANR project Datazero2 (P.I. Jean-Marc Pierson)  
Co-supervised intern Jolyne Gatt [C1]

### Oct - Dec22, visiting PhD student

Vrije Universiteit Amsterdam (Amsterdam, NETHERLANDS)  
Patricia Lago’s Software and Sustainability research group  
Conducted a qualitative study [C3]  
Co-supervised Maliha Nawshin Rahman’s Master’s Thesis [C2].

### Apr - Jul19, research internship

Université de Toulouse (Toulouse, FRANCE), IRIT laboratory  
Supervisor: Jean-Marc Pierson  
Studying pre-cooling of a data center powered by renewable energies [C6]



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## Teaching Experience

### Sep22 - Jun24, PhD student teaching assistant

FSI, Université Paul Sabatier (Toulouse, FRANCE)

Workload of 64h/year for three years

Creation of a 5-session lab (CC-BY-NC-SA) for the course **Resource Management for Embedded Systems**

Master courses taught: **Parallelism** (lab works in MPI), **Collaborative Development** (lab works in Git)

Undergraduate courses: **Algorithmic** (practical works in Python), **Programming in C** (practical work in C), **Networking and Systems** (practical work in C), **Basics of Computer Architecture and System** (exercises and practical works in shell)

## Collective responsibilities

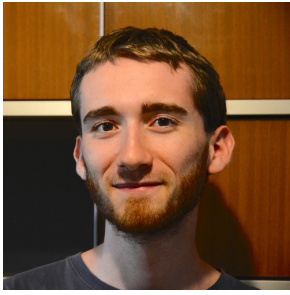
### 2024, ICT4S'24 conference in Stockholm

Member of the organizing comitee as Sponsorship Chair

Member of the program comitee as reviewer

### 2021 - 2024, Ecological Transition Mission of my lab

Member of the board (time spent: approx. 2h/week)



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## List of publications

### Peer-reviewed journals

- [J1] Maël Madon, Georges Da Costa, and Jean-Marc Pierson. “Replay with Feedback: How Does the Performance of HPC System Impact User Submission Behavior?” In: *Future Generation Computer Systems* 155 (Jan. 2024), pp. 66–79. ISSN: 0167-739X. DOI: 10.1016/j.future.2024.01.024.

### Peer-reviewed conferences and workshops

- [C1] Jolyne Gatt, Maël Madon, and Georges Da Costa. “Digital Sufficiency Behaviors to Deal with Intermittent Energy Sources in a Data Center”. In: *ICT4S 2024: International Conference on ICT for Sustainability*. Stockholm, Sweden, June 2024. DOI: 10.1109/ICT4S64576.2024.00015.
- [C2] Maliha Nawshin Rahman, Maël Madon, and Patricia Lago. “Sufficient Use of the Cloud for Work: Practitioners’ Perception and Potential for Energy Saving”. In: *ICT4S 2024: International Conference on ICT for Sustainability*. Stockholm, Sweden, June 2024. DOI: 10.1109/ICT4S64576.2024.00038.
- [C3] Maël Madon and Patricia Lago. “We Are Always on, Is That Really Necessary?” Exploring the Path to Digital Sufficiency in Flexible Work”. In: *ICT4S 2023: International Conference on ICT for Sustainability*. Rennes, France: IEEE, June 2023, p. 11. DOI: 10.1109/ICT4S58814.2023.00012.
- [C4] Maël Madon, Georges Da Costa, and Jean-Marc Pierson. “Characterization of Different User Behaviors for Demand Response in Data Centers”. In: *Euro-Par 2022: Parallel Processing*. Ed. by José Cano and Phil Trinder. Lecture Notes in Computer Science. Cham: Springer International Publishing, Aug. 2022, pp. 53–68. ISBN: 978-3-031-12597-3. DOI: 10.1007/978-3-031-12597-3\_4.
- [C5] Klervie Toczé, Maël Madon, Muriel Garcia, and Patricia Lago. “The Dark Side of Cloud and Edge Computing: An Exploratory Study”. In: *Computing within Limits*. LIMITS, June 2022. DOI: 10.21428/bf6fb269.9422c084.
- [C6] Maël Madon and Jean-Marc Pierson. “Integrating Pre-Cooling of Data Center Operated with Renewable Energies”. In: *2020 IEEE Green Computing and Communications (GreenCom)*. Rhodos, 2020, p. 10. DOI: 10.1109/iThings-GreenCom-CPSCo-SmartData-Cybermatics50389.2020.00068.