

# Thomas Benchetrit

## Contact

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- <https://thomasbench.github.io/>

## Personal info

- Master in Data Science at l'EPFL (Switzerland)
- Interest in the interactions between new technologies and democracy practices
- Musician & photographer

## Languages

- French (native)
- English (fluent)
- Spanish (intermediate)

## Technical skills

- Python, Scala, SQL, HTML/CSS/JS, C++, Matlab, Latex, Git
- PyTorch, TensorFlow, Keras, Pandas, numpy, scikit-learn, OpenCV, nltk, Plotly, matplotlib
- Hadoop & Spark
- Familiar with ReactJs, D3js and Flask/Django frameworks

## Relational skills

- Curious & rigorous
- Passionate, open-minded
- Patient and great listening skills

## Hobbies

- **Music**
  - Involvement in several symphonic orchestras and big bands
  - EP published on Spotify
- **Photography**
  - Portrait photographer
  - photo editing and colorimetry on Photoshop

## Work experience

### Open Systems AG

Data Scientist Intern (August 2022 - February 2023)

- AI-driven Threat Detection and Response
- DeepFake generation/detection to model Social engineering attacks

### Assemblée Nationale - Member of Parliament assistant

Data Scientist (July 2021 - June 2022)

- Creation of the dataclimat.fr tool, a community-based webapp to visualize climat data,
- Regular tasks of a parliamentary assistant

### EPFL

Teaching Assistant in Mechanics, Thermodynamics & Algorithms (2019-2022)

## Education

### MIT, Cambridge, USA

Master's Thesis, 2023

- Analysing Climate Change Information Campaigns on Online Social Networks (**MA's Thesis**)
- Towards Effective Communication Strategies about Climate Change with a Large Language Model (in submission)
- Analysing online social network information flows with Transfer Entropy graphs (in preparation)
- Supervised two Undergraduates on LLM-related research.

### EPFL , Lausanne, Suisse

Master in Data Sciences 2020-2023

- Anxiety detection in 19th century newspapers using custom NLP pipelines
- Music Generation using RNNs from scraped data
- Cryptography, Information security & privacy
- Distributed processing tools such as Hadoop & Spark
- Achieve state-of-the-art results with an Emotion-based image style transfer pipeline project using Python & OpenCV

Bachelor in Physics 2017-2020

- Computer simulation of physical phenomenons using C++, Qt & Matlab
- Analysis, Linear Algebra, Advanced Physics, Probabilities, Computational Physics

### Uppsala Universitet, Uppsala, Suède

Academic exchange 2019-2020

- Quantum Mechanics, Computational Physics Elementary particle physics, Physics & Finance

## Association life

- Active membership in the Musical, an EPFL association to promote music on the EPFL campus
- Active membership in the Coaching, the welcome structure for new-arriving students (help the new student to feel at ease and provide assistance in their academics)
- Organization of a Spring Gala
- TV broadcast for the Balelec music festival
- Photographer for the Agepoly events