Xavier Theimer-Lienhard   ([email](), [website](), [linkedin]())

Work experience
Light Lab (Meditron)

Research associate @ Yale University & EPFL (sep 2024-present)
- **Led the Meditron reasoning team (2025)**
  - Meditron is a suite of open-source medical Large Language Models (LLMs).
  - Post-training of medical LLMs, (distillation, GRPO, DPO, VLLM, Axolotl, …)
  - Built the evaluation pipeline of our models (MCQA, model judges, …)
  - Managed a small team of students, led meetings and distributed tasks.
  - Achieved 30 percentage points (pp) improvement on general knowledge benchmarks (MMLU, GPQA) and 9 pp improvement on medical benchmarks (MedMCQA, …)
- **Led the synthetic data team (2024-2025)**
  - Developed pipeline for safe, representative synthetic data (DSPy, RAG, Transformers)
  - Managed a small team of students, led meetings and distributed tasks.
  - Collaborated with medical doctors for feedback.

Research assistant (sep 2023-sep 2024)
- **Developed Meditree, a Tree of thought inference method**
  - Achieved 5 percentage points improvement on medical benchmarks for our Medical LLMs in our Llama-3-Meditron [paper](), reaching GPT4 performance.
  - Implemented MediTree from scratch based on the Tree of Thought architecture and the MedGemini inference method.
- **Generated structured synthetic data**
  - Transformed medical guidelines into structured data for differential diagnosis.

Work experience
Irbis Consulting SA

Software engineer (part time) (sep 2023-sep 2024)
- **Developed an Electron app**
  - Automated the creation of bidding documents.
  - Listened to feedback from users and iterated on app versions.

Software engineer (intern) (summer 2023)
- **Developed a Captcha deep-learning solver in PyTorch**
  - Developped a scrapper to retrieve and archive project data.
  - Setup a search retriever on the created database.

Education

BSc and MSc of Data Science / Computer Science @ EPFL
(sep 2018-apr 2025)   **5.4/6 GPA**

Publications

Llama-3-Meditron: An Open-Weight Suite of Medical LLMs
2024 - AAAI Workshop [OpenReview] - We finetune Llama-3.1 with the Meditron mixture (SFT, ORPO). Meditron reaches GPT4 performance using instruction tuning and the Meditree method.

GPoeT: A language Model for Rhyme Generation on Synthetic Data
2023 - ACL SIGHUM [Link] - We finetune GPT-2 on 142 MB of natural poems and 6 MB of rhyming poems and find that we obtain rhymes 60% of the time versus the 11% baseline.