

Xavier Theimer-Lienhard

Personal website : xaviertheimerlienhard.com

Email : xavier.theimerlienhard@gmail.com

Work experience

EPFL / Yale University

LiGHT Lab ([Meditron](#))

Research associate (sep 2024-present)

- **Lead, Meditron reinforcement learning / reasoning team (2025)**
 - Led RLHF post-training (GRPO) and SFT reasoning distillation of medical models.
 - Training optimization on SLURM clusters with vLLM, DeepSpeed, Axolotl.
 - Built the evaluation pipeline of our models (MCQA, model judges...).
 - Achieved a +30 pp gain on general benchmarks (MMLU, GPQA) and a +9 pp gain on medical benchmarks (MedMCQA, ...).
 - Involved in the full LLM development pipeline (data, pre-training, reinforcement learning, evaluation) of Meditron, our open-source suite of medical LLMs.
- **Lead, Meditron synthetic data team (2024-2025)**
 - Developed a synthetic data pipeline for generation of safe and representative data.
 - Created a dataset of synthetic medical clinical notes (DSPy, RAG, Transformers).
 - Collaborated with medical doctors for iterative feedback and evaluation.
- **Mentorship**
 - Managed a small team of students, led weekly meetings and distributed tasks.

Research assistant (sep 2023-sep 2024)

- **Developed Meditree, a Tree of thought inference method inspired by MedGemini**
 - Improved test time scaling and differential diagnosis capabilities.
 - Achieved a +5 pp gain on medical benchmarks for our medical LLMs in our Llama-3-Meditron [paper](#), reaching GPT4 performance.
- **Built a synthetic data pipeline to generate structured medical guidelines**
 - Transformed medical guidelines into structured data for differential diagnosis.
- **Contributed to [training](#) a state-of-the-art medical finetune of Llama-3 under 24h.**

Work experience

Irbis Consulting SA

Software engineer (part time) (sep 2023-sep 2024) (intern) (summer 2023)

- **Developed an Electron app to automate bidding documents creation**
 - Listened to feedback from users and iterated on app versions.
- **Developed a Captcha deep-learning solver in PyTorch**
 - Developed a scraper to retrieve and archive data, set up a search retriever.

Education

MSc of Data Science / Computer Science @ EPFL 5.4/6 GPA (sep 2022-apr 2025)

BSc of Computer Science @ EPFL (sep 2018-sep 2022)

Publications

Llama-3-Meditron: An Open-Weight Suite of Medical LLMs [\[OpenReview\]](#)

2024 - AAAI Workshop - We reach GPT4 performance using the Meditree method on medical evaluations.

GPoeT: A language Model for Rhyme Generation on Synthetic Data [\[ACLAnthology\]](#)

2023 - ACL SIGHUM - We finetune GPT-2 on poems and obtain more rhymes than the baseline.