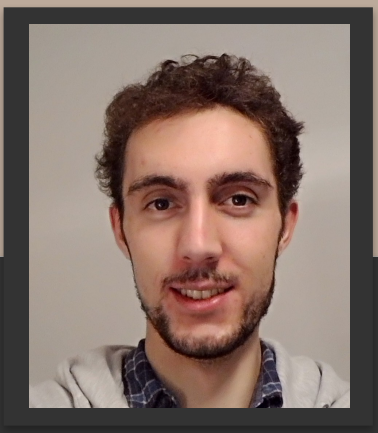

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Stockholm, Sweden

SKILLS HIGHLIGHT

- Design, training, evaluation of custom models
  - **AI/ML for biomedicine**
  - Clinical decision support, Variant effect prediction
  - **Deep generative AI models** (VAE, Normalizing flows)
  - **Sequence models**
  - (RNN, HMM, Transformers)
- **Theory and practice** of signal processing, deep learning, convex optimization
- **Autonomy** and **communication** in interdisciplinary teams combining AI, biology and medical professionals
- Programming: **Python** (pandas, numpy, sklearn, **torch**+cuda, lightning), PostgreSQL, Rust, Powershell, **GNU/Linux**, git, bash.

LANGUAGES

- **English** – Fluent
- **French** – Native
- **Swedish** – Basic

Antoine Honoré, PhD

TLDR

Researcher with strong experience at the intersection of AI, biology and medicine. I have designed deep generative models for sepsis prediction in preterm infants. My current research focuses on multimodal data integration: protein structures, deep mutational scans and multiple sequence alignments, for variant effect prediction in drug transporter proteins.

RESEARCH

Postdoctoral Fellow | November 2023 –
Advancing AI in biology research with the department of physiology and pharmacology, Karolinska Institutet

Key contributions

- Design of large scale & novel deep learning architectures for multiple sequence alignment and deep mutational scans data
- Establishing benchmarks in protein variants effect predictors
- Conducting scientific research, student mentoring

EDUCATION

Ph.D. Machine Learning and Biomedical Data | 2023
KTH Royal Institute of Technology, Stockholm, Sweden
Thesis: "Perspectives of Deep Learning for Neonatal Sepsis Detection"

Key outcomes

- AI/ML models for clinical decision support systems and the analysis of bedside monitoring time series
- Scientific publications (URL: Google Scholar), conference talks/posters (ICASSP, NIPS2017), invited talks (RISE, TU Eindhoven).
- Data integration pipeline for secure and efficient data querying, parsing and analysis from hospital database (URL: Github, Gitlab)

Double M.Sc. Electrical Engineering | 2017
Grenoble INP-Phelma, Grenoble, France
& KTH Royal Institute of Technology

Majors: Signal Processing, Optimization, Machine learning.

Classe Préparatoire aux Grandes Ecoles (MPSI – MP) | 2013
Lycée Victor Grignard, Cherbourg, France

Majors: Mathematics and Theoretical Physics.

SHENANIGANS

- Improv theater, tennis, running
- Reading: sociology, economy