

Abdelhakim Benechehab | PhD Student

Expected Graduation – Spring 2026

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📄 <https://abenechehab.github.io>

Bio

PhD student at *Sorbonne University* and *Huawei Noah's Ark Lab*. Author of publications at top-tier conferences including **ICML** and **ICLR**, with expertise in Foundation models, Time series, and Reinforcement learning.

→ **Seeking** *Research Scientist*, *Postdoctoral Researcher*, or *Senior ML Engineer* positions for **Spring 2026**.

Experience

Huawei Research - Noah's Ark Lab

Paris, France

PhD student - [google scholar](#)

2023-Now

Models with uncertainty for Reinforcement Learning. Advised by Giuseppe Paolo, Albert Thomas, and Balázs Kégl

+ Contributed to [Agent K](#), an LLM-based Data Science agent achieving Kaggle Grandmaster level.

Dental Monitoring

Paris, France

Research engineer

6 months 2022-2023

Computer vision, Object detection, Image segmentation

Huawei Research - Noah's Ark Lab

Paris, France

Research engineer

2021-2022

Autoregressive generative models for Offline Model-based Reinforcement Learning. [Preprint](#).

Instadeep

Paris, France

Research intern

6 months 2021

Multi-GPU asynchronous training in Model-based Reinforcement Learning (35% runtime speed-up for Dreamer-v3)

Amadeus

Nice, France

Machine Learning intern

3 months 2020

Anomaly detection

Education

Doctor of Philosophy (PhD)

Paris, France

Sorbonne university, Eurecom Sophia-Antipolis Data Science Lab

2023-Now

Models with uncertainty for Reinforcement Learning. Advised by Prof Maurizio Filippone

Master of Science - Master MVA (Mathématiques, Vision, Apprentissage)

Saclay, France

Ecole normale supérieure de Paris-Saclay

2020-2021

Optimization, Computer Vision, Reinforcement Learning, Bandits, Deep Learning

Engineering degree (Grande Ecole)

Saint-étienne, France

Ecole des Mines de Saint-étienne

2018-2021

Major: Data Science. Minor: Artificial Intelligence, Image and Pattern recognition

Bachelor of Science - Mathematics

Saint-étienne, France

Jean Monnet university

2018-2019

Linear Algebra, Calculus, Topology, Measure theory, Probability & Statistics

Classe préparatoire aux Grandes Ecoles (CPGE)

Marrakech, Morocco

*Lycée Ibn Timiya - MPSI/MP**

2016-2018

Mathematics, Physics, Chemistry, French and English

Publications

- Benechehab, A., et al. [AdaPTS: Adapting Univariate Foundation Models to Probabilistic Multivariate Time Series Forecasting](#). *Forty-second International Conference on Machine Learning (ICML 2025)*.
- Benechehab, A., et al. [Zero-shot Model-based Reinforcement Learning using Large Language Models](#). *The Thirteenth International Conference on Learning Representations (ICLR 2025)*.

- Zekri, O., **Benechehab, A.**, & Redko, I. [Can LLMs predict the convergence of Stochastic Gradient Descent?](#) *ICL workshop @ ICML 2024*.
- **Benechehab, A.**, et al. [A Study of the Weighted Multi-step Loss Impact on the Predictive Error and the Return in MBRL](#). *ICBINB workshop @ RLC 2024*.
- Thomas, A., **Benechehab, A.**, et al. [Fair Model-Based Reinforcement Learning Comparisons with Explicit and Consistent Update Frequency](#). *Blogpost @ ICLR 2024*.
- **Benechehab, A.**, Thomas, A., & Kégl, B. (2022). [Deep autoregressive density nets vs neural ensembles for model-based offline reinforcement learning](#). *Preprint*.

Technical skills

Deep Learning: Pytorch, DeepSpeed, accelerate
Reinforcement Learning: Gym, Stable-Baselines3, Deepmind Control, ray[Tune, RLLib], MBRL-Lib, CleanRL
LLM: Transformers, TRL, PeFT, vLLM
Divers Python libraries: Numpy, Pandas, Sklearn, Matplotlib, Seaborn
Other: Linux, Git, Docker, \LaTeX , Prezi

Achievements

Attended CIFAR DLRLSS: Deep learning summer school	<i>Vector Institute - Toronto</i>
Soft skills professional certificate: Communication, Teamwork	<i>Rochester Institute of Technology</i>
Scholarship: Granted a merit scholarship , ~ 20000\$ over 3 years	<i>OCP Foundation</i>
Public speaking competition: Finalist at a national contest	<i>The ministry of education - Morocco</i>

Extracurricular activities

Math&Maroc <i>Member, Moroccan NGO</i> AI Podcast host, Organizing ThinkAI 2024 Hackathon, Webinar host	France & Morocco <i>2023-Now</i>
Antagon TheaterAKTion <i>Staff</i> Organizing SommerWerft , a free-theater festival in the heart of Frankfurt	Frankfurt, Germany <i>1 month 2019</i>

Talks

Invited talk @ KAUST on Adapting Foundation Models	slides
Presented DICL @ a FinRL seminar	slides
MoroccoAI webinar on Adapting Foundation Models	video , slides

Languages

- Arabic (Mother tongue)	- Spanish (Intermediate)
- English (Advanced)	- Italian (Basics)
- French (Bilingual)	

Interests

- Volleyball (8+ years)	- Cultural Travel (30+ countries)
- Chess	- Bouldering