

# Mastane Achab, PhD

mastane.achab@gmail.com

mastaneachab.com

## PUBLICATIONS

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Lightlike pseudo-Riemannian adaptive gradient method	preprint, 04/2025
A Bregman firmly nonexpansive proximal operator for baryconvex optimization	preprint, 11/2024
Investigating regularization of self-play language models	preprint, 04/2024
Deep reinforcement learning algorithms for hybrid V2X communication	IEEE ICC 2024, 06/2024
A risk-averse framework for non-stationary stochastic bandits	ICDM WS, 12/2023
Theory and algorithm for sum-log-concave optimization	preprint, 09/2023
One-step distributional reinforcement learning	TMLR, 08/2023
A nested matrix-tensor model for noisy multi-view clustering	preprint, 05/2023
Distributional deep Q-learning with CVaR regression	NeurIPS WS, 12/2022
Checkered Regression	preprint, 02/2022
Robustness via distributional dynamic programming	preprint, 12/2021
Weighted empirical risk minimization	ESANN, 10/2020
Dimensionality reduction and (bucket) ranking	ALT, 03/2019
Profitable bandits	ACML, 11/2018
Ranking data with continuous labels	NeurIPS, 12/2017
Max k-armed bandit: on ExtremeHunter and beyond	ECML-PKDD, 09/2017

## EXPERIENCE

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<b>DeepGambit, Masdar City, UAE</b> Founder: differentiable logic, pseudo-Riemannian optimization	2024 - 2026
<b>Technology Innovation Institute, Abu Dhabi, UAE</b> Research Scientist: LLM fine-tuning	2022 - 2024
<b>Pompeu Fabra University, Barcelona, Spain</b> Postdoc researcher: distributional dynamic programming, safety	2020 - 2021
<b>DeepMind, London, UK</b> PhD internship: distributional deep reinforcement learning, exploration	2019 (5 months)
<b>Inria, SequeL team, Villeneuve d'Ascq, France</b> Research internship: multi-armed bandit, shortest path problem	2015 (5 months)

## EDUCATION

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<b>Télécom Paris, LTCI lab, Palaiseau, France</b> PhD thesis: 'Ranking and Risk-Aware Reinforcement Learning'	2016 - 2020
<b>École normale supérieure de Cachan, Cachan, France</b> MSc 'MVA': machine learning	2015 - 2016
<b>École polytechnique, Palaiseau, France</b> MSc: applied mathematics, computer science	2012 - 2015

## TECHNICAL STRENGTHS

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<b>Programming</b>	Python, PyTorch, TensorFlow, Hugging Face
<b>Languages</b>	French (fluent), English (fluent)