

# Achraf Azize

+33 (0)6 98 26 25 57 | [achraf.azize@inria.fr](mailto:achraf.azize@inria.fr) | [achraf-azize.github.io](https://achraf-azize.github.io) | [linkedin.com/in/achraf-azize](https://linkedin.com/in/achraf-azize) | [github.com/achraf-azize](https://github.com/achraf-azize)

## EDUCATION

<b>PhD Candidate - Scool (Inria) - University of Lille</b>	Lille, FR
<i>Interests: Differential Privacy; Multi-armed bandits; Privacy auditing; Membership Inference</i>	<i>Oct. 2021 – Present</i>
<b>ENS Paris Saclay: Master's Degree MVA</b>	Gif-Sur-Yvette, FR
<i>Master of Research in Mathematics, Computer Vision and Machine Learning</i>	<i>Sep. 2020 – Aug 2021</i>
<b>Ecole Polytechnique: French Engineering School</b>	Palaiseau, FR
<i>Major in Applied Mathematics and Computer Science, Minor in Physics</i>	<i>Aug. 2017 – Aug 2021</i>
<b>Moulay Youssef: Preparatory Classes in Science</b>	Rabat, MA
<i>Undergraduate course in Sciences leading to the entrance to the French Grandes Écoles</i>	<i>Sep. 2015 – May 2017</i>

## PUBLICATIONS

1. **Achraf Azize** and Debabrota Basu. Open Problem: What is the complexity of joint differential privacy in linear contextual bandits? COLT 2024.
2. **Achraf Azize** and Debabrota Basu. How much does each datapoint leak your privacy? Quantifying the per-datum membership leakage. TPDP 2024.
3. **Achraf Azize** and Debabrota Basu. Concentrated differential privacy for bandits. IEEE SaTML, 2024.
4. **Achraf Azize**, Marc Jourdan, Aymen Al Marjani, and Debabrota Basu. On the complexity of differentially private best-arm identification with fixed confidence. NeurIPS, 2023.
5. **Achraf Azize** and Debabrota Basu, Rényi differentially private bandits. PPAI@AAAI, 2023.
6. **Achraf Azize** and Debabrota Basu. When privacy meets partial information: A refined analysis of differentially private bandits. NeurIPS, 2022.

## WORK EXPERIENCE

<b>Teaching Assistant</b>	Oct 2021 – Present
<i>ENS Paris-Saclay, Ecole Centrale de Lille</i>	<i>Lille, FR</i>
<ul style="list-style-type: none"><li>• Graphs in Machine Learning, ENS Paris-Saclay (MVA Masters), 2021-2022, 2022-2023 and 2023-2024, with Daniele Calandriello. Course <a href="#">link</a>.</li><li>• Python Practicals, Ecole Centrale de Lille (SDIA Masters), 2022-2023, Course <a href="#">link</a>.</li></ul>	
<b>Research Intern</b>	April 2021 – September 2021
<i>InstaDeep</i>	<i>Paris, FR</i>
<ul style="list-style-type: none"><li>• Multi-Object Manipulation using Relational Reinforcement Learning and Graph Attention Networks</li><li>• Achieved zero-shot generalization by successfully controlling a simulated robot's arm to stack objects into a previously unseen number of blocks and configurations</li></ul>	
Report available <a href="#">here</a>	
<b>Machine Learning Research Intern</b>	April 2020 – August 2020
<i>DataLab Groupe Crédit Agricole</i>	<i>Paris, FR</i>
<ul style="list-style-type: none"><li>• Developed an Interpretability toolbox (Python), fully integrated into the DataLab's AutoML solution (MLBox)</li><li>• Developed an end-to-end AutoDL Script, based on Microsoft NNI framework, that finds automatically the optimal neural architecture for a tabular dataset, within some search space, considering the time and computational budget</li></ul>	
Code and scripts available <a href="#">here</a> .	

## AWARDS AND HONORS

French Government Major-Excellence Scholarship (Top seven in Morocco)  
Member of the Moroccan Mathematics Olympiad Team (Top 12)  
Ranked 2nd in the Concours National Commun (CNC)