

Ahana Deb

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Education	Graduate Student in Reinforcement Learning Universitat Pompeu Fabra	Barcelona, Spain 2023 - 2027 (expected)
	<ul style="list-style-type: none">• Advisor: Prof. Anders Jonsson• Research area: Reinforcement Learning	
	Masters in Intelligent Interactive Systems Universitat Pompeu Fabra	Barcelona, Spain 2022 - 2024
	<ul style="list-style-type: none">• GPA: 9,38, Rank: 1.• Master thesis title: "Inverse reinforcement learning with linearly-solvable MDPs for multiple reward functions" (Supervised by Anders Jonsson, Vicenç Gómez, Mario Ceresa)	
	B.E. Instrumentation and Electronics Engineering Jadavpur University	Kolkata, India 2016 - 2020
	<ul style="list-style-type: none">• Bachelor thesis title: "Analysis of anisotropic diffusion and Perona-Malik model for enhanced edge-preservation and image denoising" (Supervised by Professor Shyamali Mitra)	

Publications	1. "Offline RL in Regular Decision Processes: Sample Efficiency via Language Metrics", (Ahana Deb, Roberto Cipollone, Anders Jonsson, Alessandro Ronca, Mohammad Sadegh Talebi). ICLR , 2025.	
	2. "Tractable Offline Learning of Regular Decision Processes", (Ahana Deb, Roberto Cipollone, Anders Jonsson, Alessandro Ronca, Mohammad Sadegh Talebi). EWRL , 2024.	
	3. "BeAts: Bengali Speech Acts Recognition using Multimodal Attention Fusion", (Ahana Deb, Sayan Nag, Ayan Mahapatra, Soumitri Chattopadhyay, Aritra Marik, Pijush Kanti Gayen, Shankha Sanyal, Archi Banerjee, Samir Karmakar). Artificial Intelligence in Healthcare: Transforming Diagnostics and Treatment. INTERSPEECH , 2023.	

Work Experience	Joint Research Center, European Commission Barcelona, Spain	2023
	<ul style="list-style-type: none">• I did my master thesis "Inverse reinforcement learning with linearly-solvable MDPs for multiple reward functions" under the supervision of Anders Jonsson, Vicenç Gómez, Mario Ceresa. Available here	
	Sir C.V. Raman Centre for Physics and Music, Jadavpur University Kolkata, India	2020-2022
	<ul style="list-style-type: none">• Analysis and classification techniques of Hindustani Music, Corpus development of speech data in Bengali, and proposing novel optimal transport pipelines for speech act recognition, under Dr. Shankha Sanyal and Prof. Dipak Ghosh	
	Research Intern at TCS Innovation Labs Kolkata, India	2019
	<ul style="list-style-type: none">• Developed algorithm for 3-view motion and position detection of an object from an independently moving monocular camera, implemented deblurring with DeepGyro CNN architecture for a monocular camera, under Dr. Arnab Sinha	

Teaching Experience	Graduate Teaching Assistant Universitat Pompeu Fabra	2023-ongoing
	<ul style="list-style-type: none">• Artificial Intelligence, Undergraduate Course• Object Oriented Programming, Undergraduate Course	
	Teaching Assistant Reinforcement Learning Summer School	2023
	<ul style="list-style-type: none">• Teaching assistant for DQN tutorial, for Antonin Raffin, Barcelona Reinforcement Learning Summer School, 2023.	

Workshops and Summer Schools	<ul style="list-style-type: none">• LeRobot Hackathon, 2024 organized by HuggingFace, Toulouse, France.	2024
	<ul style="list-style-type: none">• AISTATS, 2024, Valencia, Spain	2024
	<ul style="list-style-type: none">• Workshop on Optimal Transport 2024, Humboldt University of Berlin, Germany	2024

- Co-organizer for **RLSS** (Reinforcement Learning Summer School, 2023), Barcelona, Spain 2023
- ESSAI 2023 (European Summer School on Artificial Intelligence), Univerza v Ljubljani, Slovenia 2023

Skills

Languages: English (professional), Bengali (native/bilingual), Hindi (native/bilingual), Catalan (B1)

Programming: Python, Java, PyTorch, TensorFlow, R, pandas, Keras, NumPy, Scikit-learn, Python, C++, MATLAB

Relevant Courses

Reinforcement Learning (Master's course): Position 1 in class

Probabilistic Graphical Models (Master's course): Position 1 in class

Others: Linear algebra, Calculus, Probability Theory, and Statistics, etc

Academic Services

Reviewer for International Symposium on Frontiers of Research in Speech and Music (FRSM)