Philippe Gratias-Quiquandon

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Philippe Gratias-Quiquandon | Planeurzik

Paris, France

Objective

Currently completing my end-of-studies internship at the CNRS-AIST Joint Robotics Laboratory, I am seeking a PhD position in Robotics, Reinforcement Learning, or Generative AI. Highly motivated to pursue research in AI.

Experience

- **CNRS-AIST Joint Robotics Laboratory (JRL) [🌐]** *April 2025 - October 2025*
  Research Assistant Tsukuba, Japan
  - Adaptation of Adversarial Skills Embedding for Imitation Learning in Robotics
  - Implemented in Python using newly released Genesis
  - Applied to the opening of a door with a Unitree H1 Robot
  - Under the direction of Dr. Mitsuharu MORISAWA

Education

- **École Normale Supérieure de Paris-Saclay [🌐]** *2024 - 2025*
  *Research master in Mathematics, Vision and Learning (known as **Master MVA**)* Gif-sur-Yvette, Essonne, France
  - Mean grade: 16.6
  - Relevant coursework: Robotics, Reinforcement Learning, Convex Optimization, Large Language Models, Probabilistic Graphical Models, Geometric Data Analysis, Generative Modeling for Images, Audio Signal Analysis, Advanced Learning for Text and Graph Data
- **Télécom Paris [🌐]** *2022 - 2025*
  Engineering degree Palaiseau, Essonne, France
  - GPA: 4/4
  - Relevant coursework: Image Processing, Deep Learning, Generative Models, Medical Imaging, Time Series, Optimization, Machine Learning, Signal Representations, Speech and Music Signal Analysis
  - Extracurricular: Performed at a student music festival with funk band
- **Lycée Lakanal** *2020 - 2022*
  Intensive preparatory program for entrance to top engineering schools Sceaux, Hauts-de-Seine, France
  - Speciality: Physics, Engineering science
- **Lycée Lakanal** *2017 - 2020*
  Scientific Baccalauréat, highest honors Sceaux, Hauts-de-Seine, France

Projects

- **Balancing Upkie with PPO: Using Reinforcement Learning to balance a bi-wheeled robot** *December 2025*
  [🐙]
  - Reward shaping to balance the robot using Bullet and OpenAI Gymnasium API
  - Curriculum learning, trained the robot to maintain itself with increasing forces on its torso
  - Achieved good performances by removing symmetrical constraints
  - Policy trained with Proximal Policy Optimization (PPO)
- **Consistency Models: A fast alternative for Denoising Diffusion Probabilistic Models (DDPM)** *March 2025*
  [🐙]
  - Implemented Consistency Models from OpenAI to toy models for a better understanding
  - Applied it to CelebA dataset to estimate performances
  - Implemented DDPM to compare with Consistency Models

Skills

- **Programming Languages:** Python, LaTeX, C++, Java, JavaScript
- **Languages:** French (Native), English (C1), German (B1)
- **Other tools and libraries:** Pytorch, Scikit-Learn, Gymnasium, Genesis, OpenCV, ROS