





# ANTHONY KOBANDA

## MACHINE LEARNING, DEEP LEARNING & REINFORCEMENT LEARNING

 [anthony.kobanda@polytechnique.org](mailto:anthony.kobanda@polytechnique.org)

 + 33 6 22 21 52 47





















 [anthony-kobanda](https://www.linkedin.com/in/anthony-kobanda)

 [Anthony Kobanda](https://github.com/AnthonyKobanda)

 [@akbdx18](https://twitter.com/akbdx18)

I am a **final year PhD Candidate** in Deep Reinforcement Learning at Inria Scool and Ubisoft, working under the supervision of **Odalric-Ambrym Maillard**, **Rémy Portelas**, and **Ludovic Denoyer**. Specifically, I explore **Continual Reinforcement Learning**, notably with applications in video games, addressing key challenges like generalization, catastrophic forgetting and scalability. My goal is to build innovative, adaptive, and efficient real-world systems that operate across varied domains for various tasks.

### LANGUAGES

French       
English       
Spanish       
Chinese     

### LANGUAGES

- ❖ Critical Reasoning
- ❖ Modelling & Prototyping
- ❖ Teamwork & Sociability
- ❖ Working Under Pressure

### PROGRAMMING SKILLS

Python  
PyTorch, JAX, Conda, TensorFlow,  
Hydra, Numpy, OpenCV, Pandas,  
ROS, Seaborn, SciPy, Scikit-learn  
GitHub/GitLab, SLURM

### PERSONAL INTERESTS

#### SPORT

I have been playing basketball for thirteen years and was a first team member of the university team. Before the 2020 global health crisis, we were playing the first phases of the French Championship.

#### SOCIALS

In addition to my involvement in XProjects and X-Afrique as alumni, I was part of a break-dance club named XBREAK and continue dancing today by taking bachata classes. I was also a member of the culinary club Paninix, and I still enjoy cooking for others very much.

#### OTHER ACTIVITIES

I started video editing and animation on my own. I enjoy reading mangas and comics, watching movies and TV series of various genres. On my free time, I also like to play to open world RPGs such as World of Warcraft.

### EDUCATION

- 2023 – Now • **Ph.D. Inria Scool (ex-Sequel), University of Lille** | Lille, France  
*Ph.D. in Deep Reinforcement Learning, exploring Continual Reinforcement Learning*  
Under the supervision of Odalric-Ambrym Maillard, Rémy Portelas & Ludovic Denoyer
- 2021 – 2022 • **M.S. École polytechnique** | Palaiseau, France  
*Master of Science & technology, Artificial Intelligence & Advanced Visual Computing*  
Under the supervision of Marie-Paule CANI & Erwan SCORNET  
Main Courses : Deep Learning, Reinforcement Learning, 3D Graphics, Computer Vision, Data Analysis (Geometry & Topology), NLP, Conversational Agents, Robotics
- 2018 – 2022 • **M.S. École polytechnique “Cycle Ingénieur Polytechnicien”** | Palaiseau, France  
*Master of Science & Computer Engineering – Outstanding Investment Acknowledgment*  
Main Courses : Computer Science (Algorithms, Machine Learning, 3D Graphics, Big Data), Data Analysis (Data Visualization, Text Mining, Natural Language Processing), Applied Mathematics (Probabilities, Random phenomena Modelling, Numerical analysis), Entrepreneurship (Economics, Business Model, Innovation & Strategy, Market Study)
- Sept. – Dec. 2018 • **National Gendarmerie Officers’ Academy** | Melun, France  
*3-Months Intensive Military Training – Obtaining the rank of Junior Officer*  
Main courses : Military Tactics, Police Procedures, Crossfit, Use of firearms  
Skills acquired : Teamwork, Resilience, To get things done.

- 2015 – 2018 • **B.S. Lycée Jean-Baptiste Kléber** | Strasbourg, France  
*Preparatory Classes for French “Grandes Écoles” in Mathematics, Physics & Philosophy*

### WORK EXPERIENCE

- April 2023 – Now • **Ph.D. Ubisoft** | Bordeaux, France  
*Ph.D. in Deep Reinforcement Learning, exploring Continual Reinforcement Learning*  
Under the supervision of Odalric-Ambrym Maillard, Rémy Portelas & Ludovic Denoyer
- Oct. 2022  
April 2023 • **Junior Research Scientist Ubisoft** | Bordeaux, France  
*Junior Research Scientist working on Deep Learning for Budgeted RL*  
Under the supervision of Ludovic Denoyer
- April – Oct. 2022 • **M.S. Internship Ubisoft** | Bordeaux, France  
*Research Scientist Intern working on Deep Learning for Budgeted RL*  
Under the supervision of Ludovic Denoyer
- April – Sept. 2021 • **M.S. Internship Institut de Recherche en Informatique** | Toulouse, France  
*Research Engineer Intern at the Toulouse Cancer Research Center (CRCT)*  
Under the supervision of Sylvain CUSSAT-BLANC  
I programmed a robot and a web interface to perform semi-automated injections. I developed a surrogate model of an agent-based model to model cell cultures under constraints. This project led to the proposal and acceptance of an article to the third edition of the ISMCO.
- July – Sept. 2020 • **M.S. Internship BCI Asia** | Singapore (Remotely)  
*Data Scientist Intern working on Database Cleaning and Prospection Tools*
- 2019 – 2021 • **XProjects – Junior Enterprise** | Palaiseau, France  
*Senior Project Manager, Event Manager, Business Development Assistant*  
During a two-year mandate, I was responsible of developing proposals and business strategies, recruiting qualified students to carry out the missions of our clients (large companies, start-ups and even individuals). Thanks to our efforts, for the first time in more than ten years, XProjects is recognized as one of the 30 most successful French Junior Enterprise.
- 2019 – 2020 • **X-Afrique** | Palaiseau, France  
*Strategy & Development Manager*  
Over a two-year term, we have had to organize the annual forum, coordinate associative projects and seek partners to support us in achieving our goals. Notably, I was the initiator and the organizer of an event on the issues of colonialism, with Pascal Blanchard as main speaker.
- Dec. 2018  
April 2019 • **National Gendarmerie** | Châteaulin, France  
*Deputy Section Head*  
For five months, I oversaw a section of 33 non-commissioned officers in training.