

ANTHONY KOBANDA

MACHINE LEARNING, DEEP LEARNING & REINFORCEMENT LEARNING

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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 XProjets 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 • **XProjets – 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, XProjets 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.