

Aton Kamanda

<https://atonkamanda.github.io/> | atonkamanda@hotmail.com | <https://github.com/atonkamanda>

EDUCATION

University of Namur

Bachelor of computer science with distinction (minor in mathematics)

Namur

Sept. 2018 – Sept. 2021

University of Montreal

Master of artificial intelligence, 3.925/4.3 GPA

Montreal

Sept. 2021 – Present

EXPERIENCE

Teacher assistant for a bachelor programming class

University of Namur

January 2021 – June 2021

Belgium, Namur

- Work of accompaniment and teaching of more than 120 first year students.
- The work included the correction of the students' work and project infrastructure building.

MS research student in deep learning

GEODES - Software engineering lab

September 2021 – Present

Canada, Montreal

- I have been awarded a [NSERC](#) grant to research and develop new methods in deep learning.
- I have been reviewer for top 3 software engineering conferences.
- I have been presenting my work at [MAIN 2022](#) an international conference at the crossroads of artificial intelligence and neuroscience.

Teacher assistant for a graduate deep reinforcement learning class

Mila - Montreal institute for learning algorithms

January 2023 – Present

Canada, Montreal

- I am currently teacher assistant for Mila's robot learning graduate course. Check [the course website](#).
- The course is composed mainly of PhD students, and I have been in charge of creating entirely new assignments with state-of-the-art methods (e.g., conditioned rl), writing automated tests on gradescope, grading students, helping students.

PROJECTS

Dreamer reimplementatation | *Pytorch, OpenAI Gym*

January 2022 - May 2022

- * Reimplementation of the paper [Dream to Control: Learning Behaviors by Latent Imagination](#) from scratch in Pytorch with the add of [VICReg](#) for representation learning.
- * We managed to achieve the same result as the base tensorflow implementation (sometimes even better on some environnements). And our main codebase have been reused for [this paper](#).

TECHNICAL STRENGTHS

Research interests : Bayesian inference, Probabilistic modeling, Deep learning, Reinforcement learning, Computational neuroscience, Brain-computer interfaces, Theory of computation, Robotic.

Technical: Pytorch, Gym, Mujoco Tensorflow, Keras, Pandas, NumPy, Matplotlib, Sci-kit learn, Taichi.

SELECTED COURSES

All my courses have been taken at Montreal institute for learning algorithm. ([Mila](#))

IFT 6390: Fundamentals of machine learning (A-): Machine learning course that focus in depth on the algorithmic and mathematical fundamentals of machine learning [Link](#).

IFT 6285: Natural language processing (A) : Language modeling and recurrent neural networks, word meaning and word embedding, sentence embeddings, machine translation, attention, transformers, GPT, BERT...

IFT 6135: Representation learning (A-): Course about the fundamentals and recent advances in the area of deep learning. Based on the reference book for the subject Deep learning, the course was given by [Aaron Courville](#), one of the authors of the book which made us gain some deep insight about it. [Link](#).

IFT 6163: Robot learning (A+): Course about the state of the art of deep reinforcement learning and using learning algorithms for robotics, example of subject are model-based RL, Sim2Real, hierarchical RL, multi-Agent RL, learning reward functions, continual learning, self-play, unsupervised RL,... [Link](#).