Vincent **Micheli**

PhD Student in Deep Reinforcement Learning

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About

I am a PhD student in the Machine Learning Group at the University of Geneva. My advisor is François Fleuret and my research is supported by the Swiss NSF. I am currently focused on solving complex environments with World Models and Deep Reinforcement Learning.

Education

PhD in Deep Reinforcement Learning
University of Geneva

Geneva, Switzerland
January 2021 - December 2024

- Research centered around World Models, Deep RL, Transformers, Autoencoders.
- Reviewer for NeurIPS, ICLR and ICML.
- Head TA for 11X001 *Introduction to programming and algorithms*.
- Head TA for 13X005 *Artificial Intelligence: principles and methods*.

MsC in Data Science
École Polytechnique Fédérale de Lausanne (EPFL)

Lausanne, Switzerland
September 2018 - September 2020

- Relevant coursework: Machine Learning, Deep Learning, Reinforcement Learning, Natural Language Processing, Time Series, Data Analysis.

BsC in Computer Science and Communication Systems
École Polytechnique Fédérale de Lausanne (EPFL)

Lausanne, Switzerland
September 2015 - September 2018

- Relevant coursework: Stochastic Models, Linear Models, Database Systems, Functional Programming.

Professional Experience

Microsoft Research
Incoming Research Scientist Intern

Montreal, Canada
May 2023 - August 2023

- Research internship in Deep Reinforcement Learning.

Illuin Technology
Research Intern

Paris, France
February 2020 - August 2020

- Led research efforts on the development of efficient (fast, small, multi-task) language models.
- Built a library to train, evaluate, and deploy new models in industrial applications.
- Communicated about our work in several blog posts.

Selected Papers

Transformers are Sample-Efficient World Models
ICLR 2023 (Top 5%), NeurIPS DRLW 2022 (Best paper)

Vincent Micheli, Eloi Alonso, François Fleuret

MineRL Diamond 2021 Competition: Overview, Results, and Lessons Learned
PMLR NeurIPS Competitions, 2022

Anssi Kanervisto, Stephanie Milani, [...], Vincent Micheli, [...]

Language Models are Few-Shot Butlers
EMNLP, 2021

Vincent Micheli and François Fleuret

On the importance of pre-training data volume for compact language models
EMNLP, 2020

Vincent Micheli, Martin d'Hoffschmidt, François Fleuret

Multi-task Reinforcement Learning with a Planning Quasi-Metric
NeurIPS DRLW, 2020

Vincent Micheli, Karthigan Sinnathamby, François Fleuret