

Vincent Micheli

PHD STUDENT IN GENERATIVE MODELLING FOR DECISION MAKING

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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 working on World Models for Decision Making.

Education

PhD in Generative Modelling for Decision Making

UNIVERSITY OF GENEVA

Geneva, Switzerland

January 2021 - August 2025

- Research centered around World Models, Deep RL, Imitation Learning, Transformers, Autoencoders.
- Reviewer for NeurIPS, ICLR and ICML.
- Speaker for seminars and workshops about Generative AI.
- 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

RESEARCH SCIENTIST INTERN

Montreal, Canada

May 2023 - August 2023

- Led research efforts on retrieval-augmented agents.

Illuin Technology

RESEARCH INTERN

Paris, France

February 2020 - August 2020

- Led research efforts on the development of efficient (fast, small, multi-task) language models.

Selected Papers

Transformers are Sample-Efficient World Models

VINCENT MICHELI, ELOI ALONSO, FRANÇOIS FLEURET

ICLR 2023 (Top 5%), NeurIPS DRLW 2022 (Best paper)

MineRL Diamond 2021 Competition: Overview, Results, and Lessons Learned

ANSSI KANERVISTO, STEPHANIE MILANI, [...], VINCENT MICHELI, [...]

PMLR NeurIPS Competitions, 2022

Language Models are Few-Shot Butlers

VINCENT MICHELI AND FRANÇOIS FLEURET

EMNLP, 2021

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

VINCENT MICHELI, MARTIN D'HOFFSCHMIDT, FRANÇOIS FLEURET

EMNLP, 2020

Multi-task Reinforcement Learning with a Planning Quasi-Metric

VINCENT MICHELI, KARTHIGAN SINNATHAMBY, FRANÇOIS FLEURET

NeurIPS DRLW, 2020