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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

Geneva, Switzerland

University of Geneva

January 2021 - March 2025

- · Research centered around World Models, Reinforcement Learning, Imitation Learning, Autoencoders, Transformers.
- · Reviewer for NeurIPS, ICLR and ICML.
- Speaker for seminars and workshops about Generative Al.
- Head TA for 13X005 Artificial Intelligence: principles and methods.
- Head TA for 11X001 Introduction to programming and algorithms.

MsC in Data Science

Lausanne, Switzerland

ÉCOLE POLYTECHNIQUE FÉDÉRALE DE LAUSANNE (EPFL)

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

Lausanne, Switzerland

ÉCOLE POLYTECHNIQUE FÉDÉRALE DE LAUSANNE (EPFL)

September 2015 - September 2018

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

Professional Experience _____

Wayve London, United Kingdom

RESEARCH SCIENTIST INTERN

August 2024 - February 2025

• Research efforts on autoencoders, world models, and the compression of large models.

Microsoft Research Montreal, Canada

RESEARCH SCIENTIST INTERN

May 2023 - August 2023

· Research efforts on retrieval-augmented agents.

Illuin TechnologyParis, FranceRESEARCH INTERNFebruary 2020 - August 2020

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

Selected Papers_

Transformers are Sample-Efficient World Models

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

VINCENT MICHELI, ELOI ALONSO, FRANÇOIS FLEURET

Efficient World Models with Context-Aware Tokenization

ICML, 2024

VINCENT MICHELI, ELOI ALONSO, FRANÇOIS FLEURET

Diffusion for World Modeling: Visual Details Matter in Atari

NeurIPS (Spotlight), 2024

ELOI ALONSO, ADAM JELLEY, VINCENT MICHELI, [...], FRANÇOIS FLEURET

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