Robin Strudel

Research Scientist

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rstrudel.github.io

Work Experience

2023-Present **Research Scientist**, *DeepMind*, Paris, France.
Working on generative models at scale.

Summer 2022 **Research Scientist Internship**, *DeepMind*, Paris, France.
Developed a flexible language model based on diffusion.
Advised by Rémi Leblond and Laurent Sifre.

2016-2017 **Visiting Student Researcher**, *UC Berkeley*, Berkeley, USA.
Modeled the effects of genome mutations on population genetics with diffusion processes.
Advised by Steve N. Evans, Department of Statistics.

Spring 2016 **Masters' Thesis**, Oxford University, Oxford, UK.
Modeled the impact of natural selection on genome dynamics using hydrodynamic limits.
Advised by Julien Berestycki, Department of Statistics.

Education

2018-2023 **PhD candidate in Computer Vision and Robotics**, *ENS, INRIA Willow*, Paris, France.
Learning representations for visually-guided robotics from experience and demonstrations.
Advised by Ivan Laptev and Cordelia Schmid, INRIA Willow.

2017-2018 **M.Sc. Machine Learning**, *ENS Paris-Saclay*, Paris, France.
Master's degree in applied mathematics, machine learning and computer vision (MVA).
Obtained with the highest honors.

2013-2016 **M.Sc. Probability, Bachelor in Mathematics**, *ENS Lyon*, Lyon, France.
Training in theoretical and applied mathematics.
Coursework: Probability, partial differential equations and differential geometry.

2013-2017 **Élève Normalien**, *ENS Lyon*, Lyon, France.
4 years full scholarship obtained through a highly competitive entrance exam.

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Publications

Thomas Chabal, **Robin Strudel**, Étienne Arlaud, Jean Ponce, Cordelia Schmid
Assembly Planning from Observations under Physical Constraints.
In Proc. IROS 2022.

Robin Strudel, Ivan Laptev, Cordelia Schmid
Weakly-supervised segmentation of referring expressions.
Preprint 2022.

Robin Strudel*, Ricardo Garcia*, Ivan Laptev, Cordelia Schmid
Segmenter: Transformer for Semantic Segmentation.
In Proc. ICCV 2021, *equal contribution.

Robin Strudel, Ricardo Garcia, Justin Carpentier, Jean-Paul Laumond, Ivan Laptev, Cordelia Schmid
Learning Obstacle Representations for Neural Motion Planning.
In Proc. CoRL 2020.

Robin Strudel*, Alexander Pashevich*, Igor Kalevatykh, Ivan Laptev, Josef Sivic, Cordelia Schmid.
Learning to combine primitive skills: A step towards versatile robotic manipulation.
In Proc. ICRA 2020.

Alexander Pashevich*, **Robin Strudel***, Igor Kalevatykh, Ivan Laptev, Cordelia Schmid.
Learning to Augment Synthetic Images for Sim2Real Policy Transfer.
In Proc. IROS 2019.

Teaching and Supervision

2021-present **Co-supervisor**, *ENS*, Paris, France.
Co-supervising Thomas Chabal for PhD with Jean Ponce and Cordelia Schmid, and Ricardo Garcia for PhD with Ivan Laptev and Cordelia Schmid.

2019-present **Teaching Assistant**, *ENS*, Paris, France.
Object recognition and computer vision.
Taught by Ivan Laptev, Cordelia Schmid, Jean Ponce and Josef Sivic.

2018-2019 **Teaching Assistant**, *Université Pierre et Marie Curie*, Paris, France.
Linear optimization and convexity. Introduction to python for mathematics.
Taught by Pauline Tan and Julien Guillod.

Computer Skills

Languages Python, Latex, C++.

Miscellaneous

Languages French (native), English (fluent).

Sport Climbing, Volley-ball, Surfing, Cycling, Running, Hiking.