Robin Strudel

PhD Candidate

☎ +33 6 84 19 62 29 ⊠ robin.strudel@inria.fr '• www.di.ens.fr/robin.strudel/

Education

2018-present 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.

Work Experience

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.

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.

 $\label{linear optimization and convexity. Introduction to python for mathematics.$

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.