

Paul Templier

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Education

PhD in Machine Learning	ISAE-SUPAERO, Toulouse, France	2021-2024
<ul style="list-style-type: none">◦ Topic: Leveraging Structures in Evolutionary Neural Policy Search◦ Supervisors: Emmanuel Rachelson, Dennis Wilson.		
MSc in Engineering	ISAE-SUPAERO, Toulouse, France	2016-2020
MSc in Operations Research	ISAE-SUPAERO, Toulouse, France	2019-2020

Work experience

PhD in Machine Learning	ISAE-SUPAERO, Toulouse, France	2021-Present
<ul style="list-style-type: none">◦ Research on Evolution Strategies for policy search, covering deep RL, Quality-Diversity, Genetic Programming.◦ Teaching: 150h in Python and Evolutionary Computation. Co-supervision of an intern leading to a CEC paper.		
Visiting PhD Student	Imperial College London, UK	Mar-Jul 2023
<ul style="list-style-type: none">◦ Visiting student at Antoine Cully's Adaptive & Intelligent Robotics Lab (AIRL) at Imperial College London: studying Evolutionary RL and mixes of ES with Quality-Diversity.		
Research Intern	ISAE-SUPAERO, Toulouse, France	May-Nov 2020
<ul style="list-style-type: none">◦ Evolution of neural networks with genetic algorithms for video games. Implementing NEAT, HyperNEAT in Julia. Ranked first in the GECCO 2020 competition on evolving a DOTA 2 bot.		
Member of the Board	ISAE-SUPAERO, Toulouse, France	2017-2020
<ul style="list-style-type: none">◦ Elected mandate as Students Representative on the ISAE-SUPAERO board.		
Cybersecurity Consultant	Wavestone, Paris, France	Feb-Aug 2020
<ul style="list-style-type: none">◦ Internship subject: uses of AI for cybersecurity intrusion detection & response, implementation of a PoC.◦ Other missions: EBIOS risk analysis, impacts on cybersecurity of emerging technologies (i.e. quantum computing).		
CEO's Right Hand	Pricemoov, Paris, France	Jul-Dec 2019
<ul style="list-style-type: none">◦ Leading high-stake international projects with long-term implications in an AI-focused startup.◦ Structuring internal processes and implementing management KPIs.		

Publications

Quality with Just Enough Diversity in Evolutionary Policy Search	GECCO 2024
<ul style="list-style-type: none">◦ Paul Templier, Luca Grillotti, Emmanuel Rachelson, Dennis G. Wilson, Antoine Cully (paper soon)	
Genetic Drift Regularization: on preventing Actor Injection from breaking Evolution Strategies	IEEE CEC 2024
<ul style="list-style-type: none">◦ Paul Templier, Emmanuel Rachelson, Antoine Cully, Dennis G. Wilson (paper soon)	
Searching Search Spaces: Meta-evolving a Geometric Encoding for Neural Networks	IEEE CEC 2024
<ul style="list-style-type: none">◦ Tarek Kunze, Paul Templier, Dennis G. Wilson (paper)	
LUCIE: An Evaluation and Selection Method for Stochastic Problems	GECCO 2022
<ul style="list-style-type: none">◦ Erwan Lecarpentier, Paul Templier, Emmanuel Rachelson, Dennis G. Wilson (paper) (code)	
A Geometric Encoding for Neural Network Evolution	GECCO 2021
<ul style="list-style-type: none">◦ Paul Templier, Emmanuel Rachelson, Dennis G. Wilson (paper) (code)	
Evolving a Dota 2 bot: Illuminating search in CGP and NEAT	Competition at GECCO 2020
<ul style="list-style-type: none">◦ Paul Templier, Lucas Hervier, Dennis G. Wilson (paper) (code)	

Skills

Languages: French (native), English (Certificate of Proficiency - C2), Spanish (Independent - B2)

Main programming: 🐍 Python (Proficient, work/teaching experience), Jax (GPU)

Other tools: PyTorch, MPI, Ray, Julia, C, Java, JS / HTML / CSS, Git, Linux, \LaTeX