

# Paul Templier

☎ +33 7 81 53 59 70 | ✉ templier.paul@gmail.com | 🌐 TemplierPaul | 📄 paul-templier | 🎓 Scholar | 📄 Full CV

## Education

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

## Work experience

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

## Publications

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

## 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,  $\LaTeX$