

Julian Coda-Forno

Munich – Germany

☎ (+33) 630103455 • ✉ julian.coda-forno@helmholtz-munich.de

🌐 juliancodaforno.github.io • 🌐 juliancodaforno

Languages: French (native) | Spanish (native) | English (fluent)

Education

ELLIS: Helmholtz AI/LMU & Google DeepMind **Munich & London**
PhD in Machine learning 2022–2026
Supervisors: Dr Eric Schulz (Helmholtz AI/LMU) & Dr Jane X. Wang (Google DeepMind).
Title: "Cognitive Models of Deep Meta-Reinforcement Learning"

University College London (UCL) **London, UK**
MS.c in Data Science & Machine Learning, Distinction (82.6%) with Dean's List 2020–2021
Supervisors: Prof Neil Burgess (UCL) & Dr Zafeirios Fountas (Huawei).
Title: "Leveraging episodic memory in model-based RL"

University of Manchester **Manchester, UK**
BEng Aerospace Engineering, First class Honours 2015–2019

Experience

Huawei **London, UK**
Visiting Research intern (10 months) 2021–2022
Collaborated with Huawei Neuromorphic Computing Group for my UCL Master's research thesis and pursued the research further. Investigated how the neuroscience concept of episodic memory could be used in model-based reinforcement learning for more sample efficiency in complex tasks and environments. Accepted paper at MemARI (2022 NeurIPS workshop).

Rolls-Royce Plc **Birmingham, UK**
Software Engineering Intern (12 months) 2018–2019

Supervision

Natalia Scharfenberg: Osnabrück University, Master Thesis: "LLM's representations for RL" 2023

Awards

Dean's List: top 5% of student achievement within the faculty of Engineering 2021

Distinctions of the jury: 14th French Olympiads of mathematics - Nice Academy 2014

Summer schools

MIT Brains, Minds & Machines Summer Course: Woods Hole, USA 2023

Invited talks

Harvard Efficient-ML seminar series

"Rising star speaker" - Tutorial on meta-learning in deep neural networks 2024

Reviewing

Conference on Neural Information Processing Systems (NeurIPS) 2023

Research papers

- [1] **Julian Coda-Forno**, Marcel Binz, Jane X. Wang, and Eric Schulz. Cogbench: a large language model walks into a psychology lab. *International Conference on Machine Learning (ICML)*, 2024.
- [2] Akshay K. Jagadish, **Julian Coda-Forno**, Mirko Thalmann, Eric Schulz, and Marcel Binz. Ecologically rational meta-learned inference explains human category learning. *International Conference on Machine Learning (ICML)*, 2024.
- [3] **Julian Coda-Forno**, Kristin Witte, Akshay K Jagadish, Marcel Binz, Zeynep Akata, and Eric Schulz. Inducing anxiety in large language models increases exploration and bias. *arXiv:2304.11111*, 2023.
- [4] Elif Akata, Lion Schulz, **Julian Coda-Forno**, Seong Joon Oh, Matthias Bethge, and Eric Schulz. Playing repeated games with large language models, 2023.
- [5] **Julian Coda-Forno**, Marcel Binz, Zeynep Akata, Matt Botvinick, Jane Wang, and Eric Schulz. Meta-in-context learning in large language models. *Advances in Neural Information Processing Systems*, 36, 2023.
- [6] **Julian Coda-Forno**, Changmin Yu, Qinghai Guo, Zafeirios Fountas, and Neil Burgess. Leveraging episodic memory to improve world models for reinforcement learning. *Memory in Artificial and Real Intelligence (MemARI) workshop at NeurIPS*, 2022.